FLORA OF THE REPUBLIC OF HONDURAS

J.B. Edwards. Collector

Botanical Name_Stanhopae oculata (?)

Vernacular Name_

Locality-Mountains of Santa Cruz de Yojoa, Dept. of Cortes.
Altitude-2.000 feet

Habitat -Open mountain forest. Epiphyte.

No. 522 date Aug.30 1933

Remarks.

522-Petals, background, Old Ivory from tip to near base where it shades to Light Orange. There are a few irregular Dark Lavender dots extending one-half inch from the tip to one-half inch of the base. At the base there are two Very Dark Lavender (uniform)dots on a Light Orange background. Sepals-Baskgroung, Old Ivory extending from the tips to and including the base. One-half inch down from the tip without marks. From here down to the base the sepals have many Irregular Light Lavender spots. These spots are more numerous and lighter in color than those on the petals. Lip-Underside. Middle Lobe. White without marks. Upperside has s few Dark Lavender dots. Lateral lobes, (horns), White with Dark Lavender dots near the base. Upper end of the bag. Dirty Chocolate. Lower part Dark Orange with Lavender ticking. About the middle of the bag there is a Very Dark Lavender, almost Black.rather wide stripe.extending entirely aroung the bag. NOTE: In No.521 this stripe appears only as a spot on each side of the bag. stripe appears on the upper side of the bag just as it does on the lower side. This is not true of the dots on the Petals and Sepals. on the lower sides of the Petals and sepals merely as shadows thru the Ola Ivory background. Column-White at the Tip. Wings Clear White with Lavender ticking. Midrib. Light Green. On the lower side of the column INIX the Green of the midrib is very pale.

NOTE: See comparative color notes with No. 528.

Orchids. Honduras, Bates, 1931.

Field notes, for Mr. Oakes Ames

56. Lancetilla, near Tela, Honduras, Sept.3,1931. About 400 ft. elevation, near stream above Tela dam. Small orchids collected from trunk and limbs of fallen tree. Tree had apparently been down some time and its original epiphytes had mostly died. The situation was rather sunny, which would seem to indicate that these or hids can stand more sun than the larger sorts, although they were mostly growing on the underside of branches, etc.

Alc. & dried. (Photos No.1159,1160).

- 57. As 56. Alc. (Photo No.1164)
- 58. As 56. Alc. and dried. (Photo No.1158).
- 59. Large orchid, with small flowers at leaf base growing on tree of 56. Dried. (Photo 1162)
- 60. Similar to 58 but larger. Locality of 58. Dried. (Photo 1163)
- 61. Similar to 57, but with yellow rather than orange flowers, usually borne singly, or at least not as profusely as 57. Plants picked up commonly on small branches on forest floor, apparently fallen from trees. General locality of 56.
- 62 Orchids similar to 57 and 61 lumped here. Not photographed. Several species? Mostly from tree of 56.
- 63. Similar to 57, but with shorter, more rounded, leaves. (Photo 1161)

Cambridge, 29 Sept.1931. Catasetum Oerstodie R. f.
Harris 71. Kew 150.
Labellum with thuckening on antinis
frontiel wall. Thowas heavily maculate
Labellum maculate inside.

Minas de Oro, Republic of Honduras, C.A.

June 17 . 1932.

My dear Mr. Ames:

Tomorrow I am sending you, via Tegucigalpa, four packages of plants specimens; three of woody plants and one of Orchids. I hope and feel sure that you will find a big improvement in both the quality *** of the specimens and manner of packing them.

These are the specimens which I told you in my last letter I had collected but not sent just before receiving your Radiogram. The specimens I have collected since are not ready for shipment. I also have some more of these collected the last of May which I am not able to send at this time but will forward next week. I am sending, in this shipment, only the twigs and leaves, with a few specimens of the bark of Shrubs, holding the wood and heavy bark specimens for shipment next week. I shall also include in the next shipment the Orchid flowers I have in Alcohol. I did not know until to-day that is was going to be possible for me to make a shipment tomorrow and as I wanted to get the specimens off at the earliest possible date I am sending what I have ready tonight.

You will find amoung the Orchid specimens, which are in Package No. One, many new species. Many of them are the samllest Orchids I have every seen. I have marked some of the specimens in red type so that axtra caution will be used in unpacking them. You may wonder why I have not sent more of some of the specimens. I have sent you all the specimens of that variety I could find. To get some of them especially No.155 I cut town two very large Oak teees in order to get the Orchids. I hunted for one week in the same mountain for more but was unable to find them. There is one very small specie No.156, Terrestrial, which if you find to be new to science, it would please me very much to have you name it for my assistant who found the specimen and found it growing on the farm of his father. My assistant's name is Salvador D###### Donaire. His father was very nice to me all the time I was collecting at Rancho Grande, San Luis. The young man is very loyal and takes a great interest in his work.

I am taking better specimens now than I have before and I believe you will see a great improvement in the specimens I am now collecting in Las Limas.

With best regards,

Sincerely yours,

P.S.-I have subjected all these specimens to the fumes of burning Sulphur hoping by doing that to rid them of insects. However I did not find any insects amoung the specimens when I packed them for shipment.

Comayagua, Honduras.

July 27,1932.

My dear Professor Ames:

The letter containing the Cherk has been received and I am leaving in the morning for Lake Yojoa. I expect to begin collecting there Saturday. While working the Lake country I shall establish headquarters at Siguatepeque.

I wrote the Manager of the United Fruit Company in regards to the material you left in Tela but so far have had no answer to my letter. While in Tegucigalpa July 25th. I called on the Manager of the Tegucigalpa Office and he promised that he would write to Tela and ask them regarding the material.

I am just about out of containers for shipping specimens preserved in alcohol and have not been able to buy others here so think you had better send me a few of the one pint size.

I shall be able to make another shipment of specimens about Aug. Tenth. Please address me at Siguatepeque. There are now three shipments-the last three I made- of which I have heard nothing from you conserning their arrival at the Arbotetum.

Sincerely yours,

Mr. James B. Edwards, Comayagua, Honduras.

Dear Mr. Edwards:

In confirmation of our conversation relative to felt driers and corrugated metal sheets left in Tela in 1923 by Mr. Ochs Ames, I take pleasure in quoting letter recived today from our Manager in Tela, Mr. E. A. Ames:

"Dear Mr. Le Baron:
"I have yours of yesterday relative felt driers and corrugated metal sheets left here by Mr. Ochs Ames.
On investigation I find that all these were used last year to send specimens in to Mr. Ochs Ames."

I anticipate that the foregoing will satisfactorily explain disposition of driers and metal sheets and that you will advise if there is anything further that I can do for you.

Very truly yours,

Le Baroy.

August 8, 1932.

My dear Mr. Edwards:

I was delighted to find a package of specimens and a bottle of preserved material at the Arboretum this morning.

The first paragraph of your letter of July 27th certainly made me draw a breath of relief. To know that the check covering the first payment due you on account of your services is in your hand removed the horrid fear that the Bursar's letter had either gone astray or been inordinately delayed.

The specimens are a pure delight. Perfectly prepared and most carefully packed. Not a leaf out of place and every
flower in proper position. For your records I will say that the
series in hand constitutes numbers 135--207 with 197 appearing twice.
I have not as yet made a critical study of the species, but I am sure
you will be pleased to have my observations, even though some of them

may have to be revised later.

Laclia Dibyana that in the realm of hybridization has revolutionized the hybrids of Cattley and Laclia. This species has not been found in Honduras heretogore, so it is ann addition to your conquests and takes a blue card in the catalogue. 189 is Brassavola cucullata. This is also an addition to the flora of Honduras. It is a fine thing and most acceptable. 190 may be Oncidium carthaginense. If so, it is an addition to the flora of Honduras. 191 is Comparettia falcata. This new to Honduras, but furthermore, when added to your #11, Scelochilus Tuerckheimii, completes the known representatives of the Group Comparettinae so far known to occur in Honduras. 197a is Sarcoglottes pictal found this at Tela. 200 is a delightful thing. I take it to be Liparis vexillifera and the first member of the genus to be found in Honduras. For your guidance I will say that 197a is the plant with green and white leaves.

You are certainly doing a good job where the orchids are concerned and Wr. Kobuski said this morning that your woody

plants are improving and are good.

We cannot improve on those pigs-feet bottles you

have been using. They dont leak and they seem to stand posting.

Epidendrum Edwardsii has been launched and I am planning to issue a plate of it in the next number of the Museum LEAFETS. I have already issued a plate of E. rhynchophorum. I will send you copies at once. I am hoping that you will find some more new species probably in the Lake Yojoa country.

I note the cange in your address. Will mail be forwarded to you from Comayagua. I have already sent several letters to that address. Perhaps it will be well, if possible, to have a permanent address. Or perhaps you take care of the situation when you move about?

With all good wishes,

Provisional list of numbers received August 8, 1932, being my opinion formed on a first glance at the specimens.

185 Epidendrum nocturnum Jacq. 186 Epidendrum radiatum Lindl. 187 Catasetum probably vridiflavum 188 Laelia Digbyana Benth. 189 Brassavola cucullata R. Br. 190 Oncidium, probably O. carthaginense 191 Comparettia falcata Poepp. & Endl. 192 Epidendrum ochraceumLindl. 193Dichaea, probably D. muricata Lindl. 194 Pleurothallis species. This will be reported on later. V195 Pleurothallis species 196 Lepanthes species. Probably the same as your #171. 197 Epidendrum nocturnum Jacq. 19ta Sarcoglottis picta Kl. 198 Epidendrum rigidum Jacq. -199 Epidendrum rhynchophorum Rich. & Cal. XNOXPIENTALINEXEPOCICEXIDADEXENDETIENARYISTER Love Pleaselle Conf 200 Liparis vexillifera Cogn. 1202 Elleanthus, probablu capitatus

205 Malaxis species. Probably an addition. Will report later. 206 Habenaria entomantha Lindl.

203 Habenaria setifera Lindl. 204 Laclia rubescens lindl.

-207 Maxillaria Macleei

THE ARNOLD ARBORETUM HARVARD UNIVERSITY

Oakes Ames, A.M., Professor of Botany, Supervisor John George Jack, Assistant Professor of Dendrology Alfred Rehder, A.M., Curator of the Herbarium Joseph H. Faull, Ph.D., Professor of Forest Pathology Karl Sax, Ph.D., Associate Professor of Cytology Ernest J. Palmer, Collector and Assistant in the Herbarium Clarence E. Kobuski, Ph.D., Assistant Curator, Herbarium



EVA M. FLING ROUSH, Ph.D., Assistant in the Herbarium ETHELYN MARIA TUCKER, Librarian ETHEL ANTOINETTE ANDERSON, Business Secretary ELIZABETH DEAN BENNETT, A.B., Assistant Librarian KATHERINE ELEANOR KELLEY, Assistant in the Library Louis Victor Schmitt, Superintendent William Henry Judd, Propagator

Jamaica Plain, Massachusetts, U.S.A.

August 8, 1932.

My dear Mr. Edwards:

Just a word of warning regarding too much pressure in pressing your orchid material. Inlooking at Laelia rubescens and L. Digbyana, I think it is evident that these were unduely weighted. Although the specimens look well, it becomesvery difficult to restore them to any sort of form for study when they are boiled out because the parts are agglutinated. This is very true of such things as Sobralia and Vanilla. Sometimes it is well to use pads of cotton in paper to place over the flowers of such things as Cattleya and Laclia. In any case pressure may be a serious fault in the absence of algooholic material. Just avoid a crushing weight, and if the fleshy bulbs and leaves indicate the need of pressure, then protect the flowers with pads. Sometimes one has to build up a sort of frame with strips of paper round a flower to protect it while sufficient pressure is imparted to thick leaves/ Your ingenuity will play an important part in this regard. Just make sure that the sepals and petals to not have the appearance of being glued together.

Very truly yours,

Oaker Lisa

Pito Solo, Lake Yojoa, Rep.of Honduras, C.A.

August 8,1932.

My dear Professor Ames:

In replyto yours of July 22:

It was not only the shortage of funds which caused me to send you the Radiogram. I had been advised by you that the check would be sent July First and I had asked that it be sent by Air Mail. I arrived in Comayagua July 16th. The letter was not there and did not arrive until July 21. Upon it's arrival I found that it was mailed Muly 8th. by streight mail. Naturally when I had given the letter plenty of time to reach me and it did not come I thought best to advise you of it's non arrival. I was very anxious to get out into the field and it would have been a waste of time for me to have gone to the lake and then to have returned to Comayagua to get the letter and to go to Tegucigalpa to get the check cashed.

So I waited in Comayagua for the letter. I arrived in Seguatepeque July 26 where I made arrangements for my perminate headquarters for the next five or six months. I came on to Pito Solo July 30 and have been collecting since that time. I have found some very interesting specimens of both woody plants and orchids. I expect to make another shipment Aug.15th. As there is no mail service from Pito Solo I shall have to go to Siguatepeque to mail the packages.

I note what you say in regard to the use of adhesive strips on the specimens and shall discontinue their use. I am soory that some of the numbers were lost from the specimens in alcohol and in the future I shall make the numbers on heavier paper and on the typewriter.

Enclosed find letter from the United Fruit Co. I thing that in view of the fact that this material is not available it would be well for you to ship me some of the driers.

Please have the check you are sending Sept. First sent me at Siguatepeque. In fact it will be better to send all mail to me at that address until further notice.

IB Elm and

Sincerely yours.

Pito Solo, Lake Yojoa, Rep.of Honduras, C.A. August 17th. 1932.

My dear Professor Ames:

of specimens from Siguapeteque. No. One contains Orchid specimens in numbers from 208 to 230 inc. Package No.## 5 contains specimens in Alcohol. The specimens in my next shipment will begin with Number ## 84 to conform with your instructions as per your letter of July 31st. I have a few duplicates of the specimens sent in the 15th. which are not qute ready and these will be included in the next shipment. I hope that you will find some new things amoung this lot.

Your letter of Aug. 8th. was received Aug.15th It came thru in record time. I am very glad that my efforts are producing the satisfactory results that they seem to be. I assure you that I am just as anxious to receive your reprots on the shipments I make to you as you are to receive the specimens. I was sure that my shipment of July 25 th. contained some very interesting specimens and especially was I anxious to have your report on No. 188 as I was so very much interested in this specimen. When I was in Las Limas in April I found the plant of the L. Dibyana without flowers but with an very large seed pod which interested me very much so that when I returned to Las Limas in July the first place I went was to the Very large Oak tree containing this plant. There was one blossom and a large bud on the plant. I took the entire plant back to my camp and put the flower in the press. The plant was then placed in a shady location wntil the other flower opened. I shall be very glad to recei ve the Leaflets you promise me in your of Aug.8th. My assistant is a native boy who has been in the school of an American at Manas de Oro for several years and sheaks reads and writes English. Always when I receive a letter from you his first question is: " Mr. Edwards , did the specimens arrive in good shape and was Mr. Ames pleased with them?" He takes a greatby interest in the work.

Please let me know if you are shipping me some more bottles. I have just enough for two more shipments. Maybe it will be possible for you to return the bottles I have sent to the Arboretum with specimens.

Also please send me the old news papers I asked for and the driers.

With best regards,

Sincerely yours,

August 30, 1932

North Easton, Massachusetts
My dear Mr. Edwards:

most extraordinary find and I am deeply grieved to think that you did not save the seed pod and send the ripe seed to me. Of course you could not know this. In all my experience I have never seen a specimen of this species with broad, fringed petals. Perhaps there is a record somewhere of such a variety, but I have not been able to find one. The broad fringed petals, if they could be imparted to hybrids with Cattleys and Laelia would give us an entirely new strain of horticultural orchids. At least, I think so. If by any chance, the variety is common in Honduras, it may prove worthy of a name. I am having the flower drawn, and if it comes out well I shall publish it inthe Bulletin of the American Orchid Society.

your 194 has meguessing. It has the column of a Stelic, but the vegetative parts and the shape of the flower respecte Pleurothallis. I think this is a new species. It is a dear thing. I hope you will find more of it in your rambles. The alcoholic material comes in mighty handy for a good drawing!

In the good old days that Laelia Dygbyana in Stevens auction rooms in London would have turned in α pretty penny. One hates to think of what it would bring now among our hybridizers who are on the lookout for anything exceptional.

Och Cim

Tegunigapa, Hondura. Sept. 14-32. my dran Mr. ans: I arrived in Trying whom Sunday night and am having her Part office in Signatufugue with several for the mail. The Port muster told me the start he and not arrest them and that I would trung to breing them has I would a few days and condition got us better sod brought the for key her and found that us mail was bring drapate tel from any fort I sonduras I have waited now for two days and them is no a hange. I shall return to Signatepeque to morrows and take the Speri mens book with me when I am a though as though haved be sum danger attataled to leaving the in P.D. Due. air mail is stell moving but the bold up in regular mail is that their Sovern ment has rest paid transporting coretraction check which have but it has not but a hour part and a money to carry me arrived. I have every he money to carry me until Oct. first. Our cretract says ethat a church often fully first - well a mail of your Sept. 1"; then 1" on Man. 1" and as you

had told ne that you would tem chuck mut as week early and as I as had that here one of the things has happened. Either the e hack has not her men't on Left. 1t or it was sent og stringlet mende and in in the tie up. Sim The obush in not tun I shall him to come back time time I shall be ober to men he stig ments. I have in the material ready - more than 30 rainting Outlied I kepa to think mostly them mus. Will give you a more ditricted account when I see he stig week. The I went to The P.D. Monday Jour letter of any. 20" was hundred me, I am on the L. Ryg Himmer. The send fully the I loted you about us not matien at the time of find the plant is the recoon of did not send it in. I hope that the check come in in time before I mue out & the form money of do not like to have to call our flinds as I lied last fully I have a checking arount in the States egt Não al most impossible to get a foreign purend e het las lud Rue. Lein Cuely, Ontin me to med ment to Signate peger.

September 19, 1952.

My dear Mr. Edwards:

17th, nos. 208 -230, have arrived in good condition. As a whole they are not exciting, but I think there is at least one addition to the Honduran orchid flora. I will append a list of the ones I have been able to identify off-hand.

eight hundred and fifty dollars. Of this amount \$450.00 covers your wage account to October 1st, \$250 is for travelling expenses and \$150.00 is for your assistant. Of course I do not know how you will apportion the amount for an assistant, but you may use your own discretion in this regard. This check wipes out the allowence for an assistant, travelling, postage and supplies. The balance is entirely for your own wages. The next check for your wages will be sent round Jecember first.

At the Herbarium they want me to instruct you to put all material of the same number in a general folder. Otherwise the assistants find trouble in assembling the duplicates. There is also a reference to sterile specimens. Unless flowers accompany a plant it is very difficult to identify it, and if a species should prove to be new, it could not be described or published in want of floral details.

Dr. Barbour would welcome moths and other insects. Why not send a sample lot. He might be willing to contribute something to your

pay envelope if your specimens proved attractive.

The alcohol material is spendid. Without it I should find it difficult to identify the fleshy Catasetums. It is almost impossible to press such things without destroying the structure of the slipper-like labellum.

Those you will strike an orchid flowering season soon, so that your collections will increase. The tiny Pleurothallis species are a delight. # 218, Leganthes hondurensis Ames is also a native of the region round Tela. I found it there in 1923.

Your brascarcle bigbyans, (lastic lighyans) has been drawn and will appear in the next number of the american Credit Society sulletin. It is called ver. finhripetals. Is there a remote chance that this fringed petal form is a regional race? If so, it right pay to collect plants for introduction. Of course, it is wholly possible that you collected the only plant representing the fringed petals. All others may be roomed. But sometimes a form may be typical of a limited region. It would be strange indeed if you your first strike was the exception to the rule!

The next shipment will be looked for ith much interest.

Sincerely yours,

After writing to you on the 19th, I held the letter until I could complete studies of several of the specimens represented by material in alcohol. In the meenting your letter of the 14th September came in. I am sorry that the check for the September payment has not been received. The last check has held up a few days in order to have it a draft on New York, and the Eursar sent it off by regular mail. I am afraid that this same thing may have happened with the Sept. check. I will call at the Eursar's Office when I go to Cambridge on Monday and ascertain what has happened. There is no reason in the world why you should at any time be short of funds. Indeed, we will send larger amounts way ahead of time if the history of the last payments is recated.

although quite necessary to complete specimens. I am wondering if it would not be well to allow the flowers to soften in boiling water before putting them in press, and to use very little ressure. The specimens sent have been carefully drawn from the alcohol material and the drawings placed with the dried specimens. But the dried flowers are simple broken fragments. This is not a criticism, because the same thing happens with other collectors, although now and again we come across specimens that are not broken. Stuffing the lips with a little cotton is sometimes tried, but even then breakage takes place after the specimens are mounted and inserted in the herbarium. CATASETUM is an evil genus. In some species the male and female flowers are so different from one another that the unsuspecting

man would throw them into two different genera. Lindley did this before he saw both male and female flowers borne on a single plant. The male flowers when the antennae are touched eject the pallen. The female plant does not eject the pollen. Sometimes when the sexes differ, the male flower may have an expanded, fringed or otherwise modified lip, while the female flower is a fleshy slipper-like, or helmet-shaped cup. Then again the colors may vary in the sexes. WHEN YOU FINE CATASETUMS, be on the lookout for indications of two sexes. I enclose a sketch that may make my point clear. And in your notes be very explicit with regardtto the colors of the different organs and the nature of the colors, whether spots, dots or lines, etc., etc., etc., a recommend to year a dep study of this genus in the field. We are protty neary belplese with regard to the genus in the herbariam. The segration of the sexes makes the going doubly hard. A careful field man should remove a little of the difficulty. He might remove a great deal of it if he should go about his business with a carefully planned effort. Apparently you are in a region where two or three species of Catasetum grow, one of these species at least being represented by differences in the sexes. Can you obtain evidence that will be of use to me in my work of separation? Close observation is indicated.

I realize that one does not find acres of these little fellows in glorious and abundant bloom) several plants in alcohol would make studies and drawings easier. If I destroy a plant in dissection, then there is nothing left for the artist. And sometimes, several dissections are necessary in order to arrive at sound conclusions.

I am sorry the postal operations are giving difficulties. Any obstacle to the steady flow of the orchid stream fills me with grief.

Very sincerely yours.

Siguatepeque. Republic of Honduras, C.A.

Sept.19,1932.

My dear Professor Ames:

After more than two weeks of no mail service the Post-master told me that I could mail the packages of specimens to-day, so am shipping via parcel post. Package No. One contains Orchid specimens Nos. 84 to 106 inc., Nos. 231 to 244 inc. and No. 250. With several specimens of numbers sent in previous shipments. Specimens of Aquatic Plants Nos. One to Six, inc. Specimens of Nos. 00 and 000. These latter are specimens of a plant which I think are of the Fern Family as they have spore bearing fonds. If you do not care for these at the Arboretum at is possible that Gray's can use them. I am sure that you are going to find some very fine material amoung the Orchid specimens. The flower specimens are in two bottles and are packed in package No.two. You will find in the smaller of the two bottles but two specimens, Nos. 234 and 250. This specimen, No. 250, is the only one I found of this plant so that you will fond no dried specimen of this number. Enclosed you will find Field Note covering # 250.

From Tegucigalpa I went back to the Lake but because of the very hard rains there I was unable to collect anything so returned to Siguatepeque where I have in the one day I have been out, found some very interesting material but it is not ready for shipment. I shall work here until the weather more rates some at the Lake I want to go back there forma few weeks as I know that there is a great deal of material there which I have not taken. return to the Lkael shall collect at the upper end, at Jaral, about 15 miles from Pito Solo. I am sure that I shall find plenty to keep me busy at the Lkke and Siguatepeque for at least two months more. by that time the rainy season will be about over and I can than go to Comayagua Valley and the La Paz Mountains near Comayagua.

I have not received the check for Sept. which, according to our agreement in your letter of Jan.30 1932, should have been mailed Sept. First and if it was sent by air as I instructed it should have arrived long ago as the Air Mail service was not effected by the hold up. Fortunately I have funds available in Honduras to carry me over until the First of October and I am sure that the check will have reached me by then. You understand, Mr. Ames, that the work is not being held up because of the lack of funds but as I expalined in my last letter that had the check arrived as it should have that I would have been saved an extra trip to Tegucigalpa. That is the only place where I can get checks cashed. How about the material I have asked you to send me?

Trusting that this shipment reaches you in good condition and with best regards. I am.

Sincerely yours,

B, Edward,

Siguatepeque, Honduras.
September 23,1932.

My dear Professor Ames:

Re my shipment of Sept.19th.:

Among the flowers in alcohol you will find two numbers of which there are no dried specimens. They are Nos., 243 and 250. ### The pressed specimens of No.243 were not ready for shipment and as I explained I had found but one specimen of 250 and that I had put that in alcohol but since making the shipment I have found additional material of 250 and these, together with those of 243 will be included in the next shipment.

We are having some very bad wind storms with rain most every day so that it make collecting very difficult but in spite of this I am finding some good material by working every hour that the weather will permit.

Have heard nothing of the check for September. With best regards, I am,

Sincerely yours,

Siguatepeque, Honduras.

Sept.30,1932.

My dear Mr. Ames:

I received Air Mail letters from the States to-day but there was nothing from you. I wonder if you have received the shipment of specimens I made on Aug.15th? You should have received it long ago.

I am also very much worried about the Sept.check. If it does not arrive by October First I shall be in a very embarrising position as my funds will not last mush after that date. Had I known at the time when I received the July check that you were not going to send the Sept.check until the first of Oct. I could very well have held out from the amount I sent to my bank in the States enough to last me another month.

The Assistant I hired when I first started out feft me the fifteenth of this month because I could not pay him 150.00 Pesos or \$75.00 per month. In a way I could not blame him. Living expences are very high in this part of the country. At times we pay double for our meals what we did in the Minas de Oro country. Mule hire is very high and to be able to get up in the mountains one has to travel on mule. At Lake Yojoa we were able to get a boat to take us to any part of the shore line we anted to work and the cost was \$2.00 (Dollars) per day while here for mules we musy pay \$3.00. I have another man now as assistant who is starting out very well. He is a native but is able to usethe English language very well. I think that he will make a good man in time. At least by the time that ## the hard rains have finished so that we can get out every day as we did at the Lake in August.

Best regards, du cu O

October 7, 1932.

My dear Mr. Edwards:

trouble with the financial part of our relationship. When I send in an order for payment to the Bursar, I suppose my demand is one of many and has to wait its turn. This is doubly true when drafts on New York have to be obtained. In the future it may be wise to pay you in advance and thus remove the danger of delays that may be seriously inconvenient. Of course you understand that there is no difficulty in making payments and that is not the reason for delays that have occurred in the past. It may be well to send along your next check at once.

have come through in good condition. I have only had time to give the specimens a casual glance, hence I am unable to send you the specific name in every case. Some of the numbers look most interesting and I do not recognize them off-hand. At least they are additions to the Honduran floral and study may prove them to be new to science. Your record of numbers is a bit at sea again. For example you say that you are sending nos. 84-106 inclusive. 104, 103 and 105 have already been sent. For that reason I have marked these numbers "a" in my record. Then you say you are sending 231-244 inclusive, with 243 and 250 in alcohol. 231 to 242 are accounted for by dreid specimens, but there is no 244. In other words I have nothing between 243 and 250 Duplication of numbers is rather confusing and the repetion of a number with a letter appended does not

add to the joy of nations. Try to avoid duplications by keeping a careful record of the numbers that are already made. Your 234, by the way was a mixture of Platystele compacta and Pleurothallis hastata. There was one plant of this last nmaed species on the sheet. I have set it aside as 234a. Of course errors like this are bound to occurr in the case of these lettle fellows that sometimes grow intermingled. P. hastata is new to your list. I found it near Tela in 1923. It was originally found in Mexico.

That queer fingered lip Cycnoches is the male form. I am wondering if 242 and 102 are the male and female of the same species.

Catasetum and Cychoches are puzzling in this regard and it is the duty of the collector to throw any light he can on the probablity of identity.

I have already warned you against too much pressure in pressing Sobralialike flowers. The perianth organs simply become agglutinated
and in removing the protective papers you use, become torn. The only
means of identification is then found in the alcohol material.

Your 89, a Habenaria species looks interesting. I hope you will find more of ith because I do not recognize it off-hand.

I certainly hope that check has reached you. It worries me to think you may be short of funds.

With all good wishes, Sincerely yours,

84 Maxillaria uncata, 239 Platystele compacta 85 Restrepia xanthophalma 240 Maxillaria 86 Pleurothallis 241 Maxillaria 87 Epidendrum 242 Cycnoches. 88 Bletia, probably B. tuberosa 89 Habenaria sp. 90 Lepanthes hondurensis 91 Maxillaria 92 Pleurothallis Blaisdellii 93 Lepanthes hondurensis 94 Dichaea sp. 95 Respre Restrepia xanthophtalma 96Lepanthes 97 Crptarrhena lunata, probably. 98 Epidendrum 99 Genus? 100 Oncidium 101 Oncidium 102 Cycnoches 103a Catasetum 104a Brassia caudata probably 105a Pleurothallis Brighamii 106 Maxillaria 231 Mormolyze lineata 232 Pleurothallis marginata probably 233 Catasetum 234 Platystele compacta 234a Pleurothallis hastata 235 Pleurothallia 236 Platustele compacta 237 Epidendrum nocturnum 238 Masdevallia linearifolia

Siguatepeque, Honduras, C.A. October 11.1932.

My dear Professor Ames:

The check for September finally arrived this morning and I am going to Tegucigalpa tonight to get it cashed and to get some more material I need. I shall return Thursday at noon and Friday shall make another shipment to you.

I hope that you have received the shipment of Sept.19th. I have received your letters of Sept.19 and 24 but have not the time to answer now but will write as soon as I get back from Tegucigalpa.

By the way if you see Bates please tell him that I should like to hear if he received the shipment of insects I made to him while he was in Cuba this summer.

With best regards, I am, Sincerely yours.

B. Ednard

October 12, 1932,

My dear Mr. Edwards:

Being at a distance, in a country where delays in the mail were to be expected, it would seem that once you had money in hand to cover expenses over and above your wages, you should have apportioned the money in such a way that a delay in receiving your next check would not of necessity have brought inconvenience. In July I sent to you \$1,300.00. Of this amount, unless you pand yourself in advance for three months, there should have been available for an assistant, six months wages at \$75 a month, provided you kept a full time man; \$100.00 for supplies; \$50.00 for postage; and \$250.00 for travelling. I have no criticism of the plans you make for the use of money advanced, but it is very disconcerting to feel that you are pressed for funds and in that event, worrying about the fate of cheks in transit, while I at my end, know not what to do and receive calegrams that cause fresh anxiety. It would seem that you should banking facilities of some kind to keep a supply of money on hand pendingtthe arrival of additional funds. We do not want our work interrupted for lack of money in the field. Had you told me on July first, that notwithstanding the expected arrival of funds, you would find it difficult to finance your undertaking throug September. I would have arranged to send a check by the very next mail. It seems to me that you should be prepared to go on for twice mail time, say thirty days, before hoisting distress signals. Think what would be the situation if our collectors in China measured time on an air-mail basis with a regularity of delivery that characterizes communication between New York and Florida. I certainly hope that the September check has arrived and that you are in a position to carry on until I can arrange to have your wages for the next quarter sent forward.

Your #250 is not an orchid. It is a small species of the genus Pinguicula. The Gray Herbarium people will be pleased to have it. #234

in the same bottle with #250, is Pleurothallis hastata.

Nos. 102, 224 and 242 appear to represent a single species. 242 being the mail form with pendulos raceme of small flowers, and 224 and 102 beinf the large flowered female form. I am anxious to have you keep on the watch for specimens of this genus. It is a most puzzling one and much work needs to be done on it. I spent all day yesterday puzzling over #242. The structure of the flower suggests Cycnoches ventricosum male, but it has the sepals and petals spotted and ggrees with some Mexican and Guatemalan plants in my herbarium that have been erroneously referred to C. ventricosum. Now I am wondering if we have an undescribed species in hand or a spotted form of C. Stelliferum. Sometimes both the male and female inflorescencesaure found simultaneously on the same plant. When one form is found, careful search for the other should be made in the locality and an attempt made to detect relation ship. I have already gone into this matter at some length, so I fancy that you

are forewarned with regard to what to expect. It would be wellto send all

material found with a generous representation in alcohol.

I have not sent bottles as I think the type of bottle you are now using is admirable. I refer to the bottles that originally contained pickled pigs feet. They are strong, do not leak, and hold a number of flowers very comfortably. Small bottles aften get crushed in the mail. Of course, if you insist, I will send bottles, althoughtit seems to be to be wholly unnecessary,

Those little Oncidiums in the August 15, lot, with their queer yellow flowers, have given me much trouble. I cannot find that either of them has been described. They suggest 0. glossomystax, but lack the hairy crest on the lip that characterizes that species. The smaller one, suggests the Costa Rican O. titania, but that also has a hairy crest. More material of these little fellows will be welcome.

I wish you had the capacity to make rough sketches of the flowers of the more fleshy species and a box of crayons at hand to indicate the areas of colors. Sometimes I think your color notes are too general to be of value. This is true of #242 where you only refer to the spotted sepals and petals without any reference to the color of the lip. And in this group the lip colors are quite helpful. I do not expect you to become a botanical artist or anything of that sort, but a few strokes of the pencil sometimes settle

a critical point even if made by the veriest duffer.

Perhaps you get a flavor of criticism from my lines. But I really feel very well satisfied with what you are doing and with what you have done. Your specimens are excellent. I have said that several times already. Your painstaking preparation of the material in alcohol is most commendable and makesmy work a pure joy. To sit down with a well pressed specimen and a corresponding flower in alcohol, is most satisfying to one who has been often obliged to reconstuct from mashed structures of dried flowers the salient characters on which a species rests. It is also delightful to be able to have drawings made from the alocohol material for publication or to amplify an herbarium sheet. Those fleshy Catasetums, for example, have been beautifully portrayed in pencil and the herbarium sheets are illuminating rather than meaningless.

I hope now that you will find more material of outstanding interest. The season must be getting more propitious, and your experience must be preparing you for better results in the field. Some day you will find a rich field, and if the plants are in flower you should make a "killing". As I look over the list, I have a feeling that 300 numbers in six months is a bit under what one has a right to expect. I realize that you are collecting other things besides orchids, but a little over an orchid a day, is not complimentary to your region. I wish I knew how you go about your work and had some definite knowledge of your region from an orchidological point of view. When I was in Tela I collected in three weeks about as much asyou have collected in five months. And Paul Standley when he collected ther and in Siguatepeque got a host of material in a very few months. I feel sure that your region must be richer than any in which I codlected, because of the nature of the genera and species you have already sent in. I dont want to do you an injustice, and if my criticism, if such it seems to be, disturbs your peace of mind, I shall be sorry.

Surely that check has arived by now and you are in funds agian. If not, I shall have another check sent, but what will you do in the meantime. Are you in such a position that you cannot draw money from your northern bank? Are there no local banks that are trustworthy? Can you not keep a de-

posit of some kind as on anchor to windward?

With all good wishes. Sincerely yours.

Siguatepeque, Rep. of Honduras. C.A.

October 13,1932

My dear Professor Ames:

There are several matters which I wish to take up with you at this time.

Some time ago I asked you to send me some badly needed materials; Old News Papers, Driers and Bottles. I have managed to get enough bottles to make the next shipment but after that I do not know what I shall use as containers for the specimens in alcohol. I suggested that you return the bottles I had sent in. Please advise me if there is any chance for me to get these materials.

I know that in our agreement I am to pay all my living and clothing expences but there are some things which I want you to know about my expence account, to show you how little I am really making after paying these expences. Since leaving Minas de Oro in July, my expences for meals, room, medicines and work clothes have averaged \$3.50 per day. So you see I am not saving much money.

As to the matter of traveling expences: I feel that; under the present system; and I can not change the present system whithout assistance; we are getting the same results that we should be getting, under some other system, for about 50% of what we are now spending. I am making this suggestion: Just now we are working from Siguatepeque by mule back. Because of the heavy rains, which, start about 1:00 P.M. and continue until midnight, we can not spend more than four hours per day in the field as it takes about two hours to go anywhere on mule. We collect until the rain starts and then ride back to headquarters thru a tropical downpour. not mind the daily soakings but it is as impossible to protect our equipment which we have with us as it is to collect in the rain. If I had a small truck say, a 3/4 ton Ford, I could make a great deal more headway collecting than I am doing now. There are fairly good roads radiating in all directions from Signatepeque, Comayagua and Tegucigalpa. I could start out in the morning in the truck and in one hour be farther from town than I could be in six hours by mule. I could carry all the equipment needed for a two or three days stay. away from headquarters. Our collected specimens would be protected from the rain. Out of Comayagua there are roads up and down the valley and one going to Tegucigalpa and one going to the village of La Paz which is about one third of the way up on the La Paz mountain. Out of Tegucigalpa we have all weather roads to the South Coast.to Danli in the Dept. of Paraiso, to Talanga and on to Guaimaca in the Dept. of Tegucigalpa. In the dry season we have roads on from Guaimaca to Juticalpa in the Dept. of Olancho. From Talanga to Minas de Oro in the Dept. of Comayagua via Cidros. Also to other points out of Tegucigalpa. While in Tegucigalpa this week I saw just the Truck I need. It is a new 3/4 ton Ford 1931 model, has been used only as a demonstrator by the Ford Agency and the price \$600.00 is very cheap. If you people will buy this truck for my use I am sure that the work would progress more satisfactorly and the cost of gasoline and the upkeep of the truck would not be greater than we are paying now for mule hire and Auto fares I am paying now. The Ford people agree to buy the truck back when we are thru with it at a fair price depending on ### it's condition at that time. Over

not know if I have made this plea convincing or not but I do know that if you were to do the work under the present conditions that you would be convinced that I am right in my statements.

In reply to some of the things you mention in your letters of Sept.19 and 24th. I have been preparing and shipping the Woody Plant specimens as per your instructions. If the Herbarium people want the specimens shipped as you say in yours of Sept.19th. I shall make all shipments that way after the shipment I am making tomorrow, which is all ready to take to the Post Office. As for sending Insect specimens to Dr.Barbour: I have made several small shipments to him thru Bates but I guess that my specimens have not "Proved Attractive" as I have received no contribution from the Doctor. Bates did tell mein one letter that if there were any supplies I needed to let him know and as I know that they can get this class of material much cheaper than I can buy it, I wrote him telling him of a few things I needed and that if he would get them for me I would send him a check covering the cost. That letter was sent to him months ago and I have never heard from him. Anayway, owing to the conditions I have just outlined to you, I must devote all my working hours to collecting for you if I am to make any showing. I do pick up a few Insects but only as I find them.

More about the Brassavola Digbyana plants. As I told you in my letter of Aug.17th. the plants sent you were the only ones I have ever found in spite of the fact that at the time I found those I serched the immediate country for days and have been on the watch for it in other parts since. Do you think that the plants have a very graat value to hybridizers in the States?

I assure you that I shall make every effort to comply with your request for more material of the small species in liquid.

I have not received the Museum Leaflets you told me you were sending me-Yours of Aug. 8th.— I should like very much to get them and also a copy of the American Orchid Society Bulletin describing the B.Digybana. Do you think that it would be possible for me to become a member of the American Orchid Society and if so just how could it be arranged?

I am sending you another shipment tomorrow and shall write you at that time giving you all the data of the shipment.

With best regards, I am,

Very truly yours.

Seguatepeque, Rep.of Honduras, C.A. October 14th.. 1932.

My dear Professor Ames:

To-day I am sending you more specimens by Parcel Post. Package No.One contains the dried Orchid specimens and No.Two contains two bottles of Orchid specimens in liquid.

The dried specimens contain the numbers 243,245 to 281 inclusive and No.A-50 which is material of the Indian Pipe requested by Gray's.

I hope that the shipment of Sept.19th. has been received by you and that this shipment of to-day will arrive in good time and that you will be pleased with the specimens. The heavy rains continue and it is only about half the days that we are able to get into the field at all.

With best regards, I am,



El Jaral, Lake Yojoa, Dept. of Cortes, Rep. of Honduras, C.A. October 26,1932. My dear Mr. Ames: In reply to parts of your letters of Oct.7th and 12th.: I shall not be able to discuss with you at this time the matter of numbers as I do not carry into the field data When I return to Siguatepeque covering shipments already made. next week I shall write you regarding this matter. I understand from yours of Oct.12th. that you think that the work was delayed because of the lack of funds. This was not the case. I sent the radiogram because more than a month had passed since time for the check to have arrived, had it been sent on Sept. First-and I supposed that it had been sent then-I wanted to know the date on which it was sent so that I would know just what to do next; wait a while longer; try to trace the letter or instruct you to send duplicate as the original had sure been lost. I told you in my letter of Sept. 19th. that I had funds available in Honduras to carry me over October First. After my experance with the July check I had done the very thing you suggest— Kept enough funds ## on hand to carry me over and was "prepared to go on for twice mail time". The whole trouble was and I am sure that I have mentioned this in other letters-that instead of the check being mailed on Sept. First it was not sent until Sept. 20th. However there will be no occasion for worry in the future. I have, contrary to the advice of friends in Tegucigalpa, deposited all my September check and part of the funds I had on deposit in the States, in a local bank in Tegucigalpa. In the future you may send my salery check whenever it suits the conveniance of the Bursar. About the bottles: I wrote you some months ago that it would be impossible for me to get any more of the same kind of bottle; the pig's feet kimd; in Honduras and suggested that you return some of these that I had sent in with specimens. I suppose that after my next shipment I shall have to use empty whiskey bottles. I don't see how I shall be able to get the larger specimens into them. I had hoped that I had make it clear to you that conditions in the interior of Honduras are very different from those on the coast. Also that for four of the six months since June First we have been having very heavy rains that all but stoped our work. In fact the rainy season started May First but were ### the storms were not so heavy until June First and since then there has been no let up. I do not know what months of the year you were at Tela-But I do know that Standly was here during the dry season and that his Orchid specimens collected at Siguatepeque were not very numerous. In Minas de Oro and in Siguatepeque there is just one White Man-One in each palce- In all other parts I have had no help from any white man and I tell you when you have to depend on these lying, thiefing natives you are up against a proposition much different than where you have all the assistance you want from your own and interested people as ##### You do not know this but it is a fact never the less. at Tela. On more than one occasion I have had to go into the woods and burn charcoal to use in the heater for drying specimens. This because the natives with whom I had made arrangements for the work had failed to do as they had promised. Your criticisms as to the preparing of specimens are always welcome and I shall try to benifit by them.

Here is a piece of news that will probibly upset you as much as it has me for the past month: Sunday, Oct. ## 30th. is National Election day in Honduras and it seems almost certain that soon after this election-no matter which side wins-thet the country will be thrown into a state of revolution. I understand that the American Minister has advised both parties that the change in government -if it comes at this time-must be made peacefully. I have asked the Minister to wire me; if trouble comes; in time for me to get into safe country. The date of things to start seems to have been set for November 5 to 10. I surely do hope that nothing comes of these rumors but they are disturbing to say the least. I shall make a shipment of all specimens, ready to ship, Nov. First. There will be no Mail movement of any kind if we do have a revolution.

I shall make an effort to get the specimens you want I mean the ones you mention in these letters.

With best regards, I am,

Yours truly,

23

My dear Mr. Edwards: The package containing orchids of the 243 and following numbered series has arrived in perfect condition, accompanied by two bottles of alsocholic material. I have not yet had an opportunity to make identifications, but there are several new things including at least one new tribe. I will report on the specimens in full, when I write again. I am delighted with the material and I have that enjoy working it up.

I am glad to learn that the check has reached you at last. I am sorry that there should have been such a long delay, and to avoid a similar one I am instructing the Bursar to send forward at once the check that would ordinarily be maded to you on December first. I am also requesting air mail transmission. I am making the payment an even five hundred dollars, the extra fifty being to keep you in any needed supplies and to help out on mule hire, assistance etc. I wish it were possible to grant your request regarding the Ford automobile. But we are operating on a reduced budget owing to the Depression and I can not advance large sums at this time. Such an expenditure now might interfere with my plan to effer to you another year of service. I realiz the advantages that would come from the possession of motor transportation, but economy is indicated and I must follow the tide.

I have instructed my assistant to forward to you some driers, newspatched and bottles. It may be some time before these reach you. It might pay when you are in Tegucigalpa to purchase some pickled pigs feet in bottles and get your supply with a food element included. That is if you like pickled pigs feet, an article of diet that I personally dis-

BOTANIC GARDEN OF HARVARD UNIVERSITY,

CAMBRIDGE, MASS. U.S.A.

like.

In describing flowers I awonder if you sometimes mistake the sepals for petals. In one of your color notes you call for white sepals, yellow petals and white lip. This is a strange combination, because the lip and petals are usually of the same color. The sepals are the outer three members of the flower; the petals and lip constitute the inner series of three. Be carefulabout this, because one might readily go wrong if notes are not accurate.

In the package just at hand there are several very interesting genera that are new to the Honduran flora. Of course a new addition in the generic realm is an event. 256 is a member of the genus Lockhartia. This is a new tribe for Honduras:

I am sorry that expenses are running higher than you anticipated. Of course this is not the fault of any one here. You made your own proposition and I not only accepted it but threw in funds for purposes be you did not mention. When we make a new arrangement you may/sure that any proposal for additions will be sympathetically considered. But just at present with the Arboretum income drying up, we are not looking favorably on large appropriations for exploration. We are interested in developing our knowledge of the Central American flora, and I am inclined to put collectors first in line who are helping in that direction. Without committing myself to any definte proposal, I think it is very probable that a fresh contract will be yours at the end of your present one, on similar if not hetter terms.

Very sincerely yours.

BOTANIC CARDEN OF HARVARD UNIVERSITY,

CAMBRIDGE, MASS. U.S.A.

Tegucigalpa, Honduras, C.A.

November 17,1932.

My dear Mr. Ames:

ed to leave Siguatepeque. Am leaving Teguci.this afternoon by Air for Minas de Oro where I shall be safe and still be able to do some collecting. M.de O. is an out of the way place and is never molested. Do not worry about me as I shall be all right. My only reason for leaving Teguci. is that here I would not be able to collect while at M.de O. I will be just as safe as here and will be able to do some work too.

can not write very much about the trouble as this letter will probibly be sencured. The Associated Press my be able to give you some information, I am not sure that this will be the case.

Will write you at the first opportunity. There is no mail service here now except by Air and that may not last long.

With very best regards, I am,

Very truly yours,

B. Eduardo.

November 19, 1932.

My dear Mr. Edwards:

at hand. Unless the revolt has given rise to delays and troubles in the mail, the specimens you are sending should arrive in a few days and give me another thrill or two. I would have sent you a list of the names of the last parkage some days ago if it had not been for the fact that several of the species have been difficult to identify. I enclose a list that will give to you a pretty fair idea of what has been determined.

stock and bottles. Today I packed up shother box of bottles. Five of these are of the preserve jar type and inside of each you will find several phials for the smaller flowers. It may be well to send along another box of different sizes of bottles in a day or two. I don't want this part of your work to be slighted for want of the proper containers. And I hope you will send more flowers of each number when the specimens gathered warrant doing so. I am smry that you have not found more material of the Cycnoches with a fingered lip. You seem to pick up the female form. The males must be there. They just must be I kow they are there. The log and 124 are females. Why should they not grow in the same clump. Or onthe same tree. That there are no males in the clumps is what rouses my anger. How do those females get fertilized. And you say you are sending a fruit of 224.

In your letter of the 6th November, you say there is not going to be a revolution. Oue papers have report of many killed as a result of fighting in San Pedro Sula, Trixillo and vicinity.

243 Epidendrum difforme. This is the var. latilabre. 244 No specimen. 245 Epidendrum mixtum 246 Epidendrum myrianthum 247 Pleurothallis Johnsonii New to Honduras 248 Pleurothallis johnsonii. The flowers from rhizome very odd. 249 Epidendrum polybulbon New to Honduras 250 Not an orchid 251 Malaxis ichthyorrhyncha New to Honduras 252 Stelis floripecten (Provisional determination) 253Stanhopea. This may be S. Wardii. I have not yet boiled out a flower. I wish there had been an alcohol specimen. 254 Coelia bella. A beautiful orchid. New genus for Honduras 255 Palystachya minor 256 Lockhatia Oerstedii New genus for Honduras. 257 Maxillaria cucullata 258 Lepanthes turialvae New to Honduras. 259 Coelia macrostabbya New to Honduras. 260 Lepanthes turialvae 261 Lepanthes Edwardsii 262 Epidendrum rhynchophorum 263 Pelexia hondurensis 264 Bulbophyllum aristatum. Poor material of this was collected by Bates. 265 Epidendrum, probably sp. nov. 266 Liparis vexillifera 267 Habenaria tetranema New to Monduras. 208 Pleurothallis Pansamalae New to Honduras. 269 Hormidium sp. 270 Maxillaria cucullata 271 Epidendrum ramosum 275 Epidendrum floritundum New to Honduras. 273 Govenia species 273 Epidendrum cobanense 274 Epidendrum sp. 276 Epidendrum nocturnum 277 Bletia papillifera New species. 278 Epidendrum ciliare New to Honduras. 279 Not an orchid. 280 Habenaria alata. New to Honduras. 281 Mormodes lineatum New to Honduras. A depauperate specimen. Better material sadly needed. 84 Maxillaria uncata. 85 Restrepia xanthophtalma. 86 Pleurothallis Wercklei 87 Epidendrum cochleatum 88. Bletia tuberosa. 89 Habenaria repens, new to H. 90 Lepanthes hondurensis 91 Maxillaria sp. 92 Pleurothallis Blaisdellii. 93 Lepanthes hondurensis. 94 Dichaea sp. 96 Restrepia xanthophtalma

90 Lepanthes hondurensis 91 Maxillaria sp. 92 Pleurothallis Blaisdellii.
93 Lepanthes hondurensis. 94 Dichaea sp. 95 Restrepia xanthophtalma
96 Lepanthes Edwardsii new sp. 97 Cryptarrhena lunata. 98 Epiden. isomerum.
99 Genus? Probably new Oncidium. 100 Oncidium crista galli 101 Oncidium
hondurenses new sp. 102. Cycnoches spestes. 103 Arpophyllum alpinum.
103a Catasetum sp. 104a Brassia caudata 105a Plerithallis Brighamii.
106 Maxillaria Tuerckheimii.

231 Mormolyze ringens 232 Pleurothallis marginata. 233 Catasetum. 234 Stelis compacta 235 Pleurothallis vittata 236 Polystachya minor

237 Epidendrum nocturnum 238 Masdevallia linearifolia 239 Stelis compacta

240 Maxillaria rufescens probably. 241 Maxillaria variabilis

242 Cycnoches species 243 Epidendrum difforme 244 missing. 250 Not an orchid.

Siguatepeque. Republic of Honduras, C.A. January Eighth 1933. My dear Mr. Ames: I arrive d here yesterday from Minas de Oro via. When I arrived in Teguci.last Friday I found two letters from you and the letter containing the check for December. The twp from you were dated Nov.3 and Nov.19 recpt. The check for \$500.00 was dated Nov.27th. I had some trouble getting it cashed as it was not a New Draft. Even the bank where I have a checking a account refused to take it. I finally sold it to the Bank of Atlantada Thanks for the extra \$50.00 this will help out a lot on expences. I have had no advice from you about the shipment I made Nov. 6 1932. Has it arrived? In Teguci last Friday I went to see Mr Lay, the Ame ican Minister and he says that the revolution is not over yet but that he believes that it will be in a few more days. He also said that all the fighting is confined to the Southern part of the Republic and that he thought it perfectally safe for me to come to the Comayagua District. I find that every thing is quiet here and around Comayagua. I was not idle all the time I was in hiding at Minas de Oro. I was confined to my bed for two weeks with an attack of Malaria and an other week in the house getting over the effects of it. I collected quite a number of specimens of new Orchids as well as (blooking) woody plants. I shall have a shipment ready for the matil tomorrow afternoon. This will be the largest shipmeny I have had for several months. There will be 8 or 9 packages. You see, when the rebels ran me out of Siguatepeque, Nov. 13th. I had specimens in the press but as I had to get out in a rush I was not able to take these specimens or any of my supplies with me. I feft the presses with a native here and told him how to care for them but have been very much worried as to their condition. On my return, yesterday, I examined the specimens and they were all right. I was happy. In your letter of Nov. 3ed. you say something about a new contract for me next year. In regard to that I have this to say: I have had many letters from institutions and private parties in both the States and from abroad asking me if it is possible for me to supplybthem specimens covering most all departments of Natural Science. To all I have replied that I am under contract with the Arboretum until March 31 1933 and that until that time I shall not be able to supply them. Two of the ## parties from abroad want Orchid specimens. As I have been connected with you for so long and as I feel that the work has only just started in Honduras I want, if satisfactory arrangements can be made, to remain with the Arboretum. I have kept a careful account of all my expences and find that it will take about \$500.00 or \$600.00 more than I received this year. If you can make the contract for \$3,600 for the year, this to include everything, I feel that I shall be able to get by much better than I have this year. However if you find that \$3,600.00 is more than you can possibly supply for the work please let me know just what you can do. In order to continue the work with you I am ready to make some personall sacrifices. #### In estimating this amount I have figured my salery tha sane as this year. The additional amount being added to the different expense items. I am sorry that the University feels that they can not afford to invest in a motor car for the work here and I have

this offer to make to you. Should you give me a contract for another year and will advance me \$400.00 to be applied on my salery account I will buy the truck as my personal property but to be used in my work. I should like to do this as soon as possible somthat I could go into parts of the Country during the next four months where it would not be possible to go during the rainy season. I know that I could do so much better with a car that I am willing to pay for it from my personal funds.

I shall write you tomorrow giving you all the details of the shipment I shall make at that time.

Hoping to hear from youmin the very near future, I am,

Very truly yours.

JB. Eduard

Siguatepeque, Rep. of Honduras, C.A.

January 10 1933.

My dear Professor Ames:

Laye yesterday afternoon I mailed nine packages containing specimens as follows: No.One, contains Orcids Nos.(duplicates) 224,256,264 and 300- Originals-309 to 314 inc. Package No.2,Orchids,315 to 326 inc. Package No. 3,Orchids,Nos. 327 to 335 inc. Package No. &Four,Orchids, Nos.336 to 347 inc. Package No.5, two bottles of Orchid spacimens in liquid,Nos. 315 to 326 inc. Package No. 6 contains 7 bottles of Orchid specimens in liquid,Nos.309 to 314 inc. and 327 to 247 inc. Package No.7 contains Woody plants Nos.504 to 514 inc. Package No.8 contains Woody plants Nos.504 to 514 inc. and Package No.9 contains woody plants Nos.532 to 555 inc. I surely hope that these packages arrive in good condition as there are many fine specimens in them. All the woody plant specimens are of blooming plants.

I nearly fortgot to tell you that Pa.No.one also contains a specimen marked G-50 this for Gray's.

In packege No.Two there are two specimens of No. 318. This is a beautiful Orchid found at Las Limas, near Minas de Oro, Six specimens of No.322. This Orchid is almost a duplicate of the Erassavola digybana except that No.322 has a very delightful Lavender color and is not fringed quite as deeply as the B.digybana. It is a beautiful thing. I found this near Minas deOro, San Louis.

All in all I am sure that you will feel as I do that the month and a half I spent in Minas de Oro during the trouble in this part of Honduras was not all lost.

During the trouble a friend of mine came to Minas de Oro-For safety- from Rosario and brought me several of the Pig Feet bottles. I now have enough large bottles to keep me going for several months. Yesterday afternoon I receive d the Bottles and Dryers you sent some months ago.

With best regards, I am,

Sincerely yours,

My dear Mr. Edwards:

Your letters of January 8 and 10 are just in. It was delightful to receive word from you again and to learn that you are safe and once more at Siguatepeque which seems to be an ideal region for orchids. The reason I have not written to you before, is found in my fear that the mails were too uncertain. I gained this impression from what you wrote in your last letter mailed in November 1932.

Now I shall await the arrival of the nine packages you are sending. They should come in by the end of next week or a little later. The November 6th shipment came through all rigt and NAN the determinations will follow on another page.

You will find that there are several new species.

Regarding our future relations I am as yet uncertain. We have to make our 1933-34 budget early in February. When the figures are before me that indicate the available income, I shall know exactly what I can offer you. Rest assured that I shall favor your enterprise in cutting down on others. As you must know all of our universities are hard hit by the DEPRESSION and it is necessary to cut everywhere. Our existing contract calls for \$3.100.00 if we include the extra fifty dollars included in the Dece ber check. It should be possible to find that amount plus five hundred dollars for the next year, and if so, I shall be quite willing to advance the four hundred dollars you specify. Just as soon as my budgetary figures are in hand I shall write to you at once and remove all doubt from this transaction. I dont promise anything, but I suggest that you will do well to await word from me before committing yourself to dealings with others.

Arboretum this morning. I gain the impression that they are better satisfied with yout work than they appeared to be at first, but I also gain the impression that they are not favorably impressed by the amount of the material collected. Just what you can do about this I do not know, but surely you will be able to step up production from now on. The herbaceous things, by the way are always welcome. Dr. Standley informs me that the yellow lotus from Lake yojoa is an addition to the flora of Central America. This species, Welumbium luteum, has been found in Colombia and in the West Indies, but never before, so far as we know in Central America. I am sure that Standley would like to have a specimen if you again visit the lake and find the plant in bloom. A grass that you collected is also new to Central America.

I hope the two packages of bottles reached you and that it is to these you refer in your letter of January 10. It may be well to send additional bottles and drierers and anything else you may need. I hope the mails become normal so that large packages will move freely again. It would cost a fortune to send bulky packages by air-mail.

I wish it were possible to see into the future a little more clearly. I had hoped that the New Year would bring a turn for the better, but business is still flat on its back and the reduction or passing of dividends seems to be without end. Our friend Ed Wyn in his radio jokes remarked that it is so quiet in Wall Street one can actually hear the dividends pass. There is a vast difference of opinion regarding the New Day. Some people are so drenched with pessimism that they depair of a return of the old prosperity and see an end of capitalism, the gold standard and normal ways of living. Perhaps you have not yet received the wave of despair? And yet, I take it your revolution is but a sign of its having passed your way.

I think it may be well to get out a preliminary list of Honduran orchids and then supplement it as you send in more material. When the next shipment comes in I shall settle down to work, identify the specimens and include them in the list I now have. It will make a very substantial addition to our knowledge of Central American orchidology. Indeed, your collections have added some very signifi-

cant species and genera.

You still have the job of finding a lady-slipper orchid. Why is it that between Mexico and Costa Rica this group is missing?

I am still anxious to have material of Catasetum and Cycnoches. In every case (Stanhopea included) put flowers of these in alcohol. When dried they are hopeless. On the herbarium sheets of your dried material Mrs. Ames has made very acurate pencil drawings of the preserved flowers so that the specimens are an ideal aid in interpreting this awful group. Do not forget my instructions with regard to these highly technical genera. And when you find a specimen in flower, search diligently fot additional ones. Always bearing in mind that there are probably two sexes, one very unlike the other, the females being similar in different species. Very detailed field notes are essential in this case.

I will arrange to have the final payment on your present contract sent off promptly. And in a week or so you will hear from me with regard to the future.

. Very sincerely yours,

Numbers 243-308 inclusion reported.

253. 269 272 only the genus groin 274 297 397 Siguatepeque, Honduras.

Feb.11,1933.

My dear Mr. Ames:

I shall have another shipment ready nest Tuesday

Feb.14th. I am just now recovering from a rather serious attack

of Black Water Fever. I took sick Jan. 14th. and for three weeks

I was in a very bad condition. During the past form weeks I have

not been able to do any collecting but my assistant has been

busy most of the time so that I shall be able to make a shipment of

fair size.

I am planning to move to Comayagua about the 15th. and start collecting there at once. I expect to collect in the Comayagua Valley the rest of year I mean the contract year).

I have had no word from you as to your plans for another year. If I do not receive word from you before the First of March I shall begin to make ### other plans. I have several parties waiting for word from me that I am ready to furnish them with specimens.

Wuth best of regards, I am,

Sincerely yours,

B, Edward.

Siguatepeque, Honduras.
Feb.14,1933.

lay I am sending chid Specimens in No.344-Contained body Plant Speciment ope these reach your interesting management and a legar than the second s

My dear Professor Ames:

To-day I am sending you three packages.

Nos.One and Two contain Orchid Specimens in Alcohol and No.3

contains Orchid specimens; No.344-Contained in the last shipment
Nos.348 to 362 inc. and Woody Plant Specimens Nos.556 and 557.

I hope these reach you in good condition and that you will find some interesting material in the shipment.

I have not had a letter from you for a very long time and am somewhat worried about the last shipment made Jan.10. I learned just the other day that there had been a strike in the Post Office at Tegucigalpa beginning about Jan.12 and lasting for some three weeks. All the packages shipped out of the country by P.P.; regardless of where they ware mailed must go to the P.O. in Tegucigalpa and re-shipped from there. Please let me know as soon as possible if the shipment reached you all O.K.

I am leaving for Comayagua in the morning. Will begin collecting there at once.

With very best of regards, I am,

Very truly yours,

P.S. Have you some leaflets to send me?

February 22. 1933.

My dear Mr. Edwards:

On the fifteenth I authorized payment to you by air-mail at Siguatepeque, the final installment on you present contract. of \$\frac{450.00}{}.00\$. I hope the check reaches you promptly and that you will have no difficulty in cashing it.

Seed capsules of a Cycnoches. I am afraid these are not sufficiently ripe to be of use to us. Their coming however brings to the fore a matter that will be as distressing to you as it has been to us. I refer to the fact that I have been waiting for the arrival of the balance of the nine packages sent some time ago. Only part of the shipment came in. I supposed that the packages had become separated and that the delayed ones would come in safely. Now that the box containing the fruits has arrived postmarked Feb. 3. I am worried. It is nor rea onable to suppose that the fruits would pass the missing packages. Do you suppose the post office people have again indulged in vandalism or theft? Would the postage stamps attract injurious attention? Of the hundreds and hundreds of packages that come to the Arboretum from all parts of the world we rarely have losses. Very rarely; almost never.

I have budgeted three thousand, six hundred dollars for exploration in Spanish Honduras, but as I look back over the amount of material that has come in ,I do not feel that you are quite earning the amount set aside. Can you not step up production? On a per specimen basis your collections are extraordinarily costly. I have but the highest

for the quality of your orchids and the material in bottles is perfectly marvellous when it comes to the description of new species. Yet, we have to consider whether or not our money is bringing in material in sufficient amounts to pay for spending it. With regard to orchids I sometimes wonder if you are simply finding and not searching, if you know what I mean. I realize that orchids are tree dwelling plants and that it is almost impossible to make a showing if we depend on what is simply within reach, or on what we can pick up in a ramble through the forest.

Just now I am in the midst of preparations for a trup to the West Indies. I shall be away until about April first. When I return I shall expect to have final news for you with regard to the missing orchids. In the meantime I hope you will find an abundance of good material. Is not this a favorable time of year? May, I understand is a good month for your part of the Central American realm.

There are several new species in the last shipment. There described them and hope to get them published promptly.

At the end of this letter I will enter a record of the missing packages.

With the best of good wishes, Sincerely yours,

Orchido nos. 315-326 melissis an missing (dres specimen Orchido nos 315-326 melissis an missing (two battle of flowers in alcolal) Unfolunitely I have not at hand the record of the woody plants, but an sur losse away their are heavy. I will report on their when I retire Comayagua, Honduras.

March Third 1933.

My dear Mr. Ames:

To-day I am sending you four packages by P.P. No. one contains dried Orchid specimens Nos.363 to 365 inc. Nos. 2 and 3 contain Woody Plant Specimens Nos.558 to 583 inc.; package No.4 contains Specimens of Orchid flowers in Liquid.

As I told you in my letter of Feb. 14th. I came over to Comayagua on Feb.15th. and have been working everyday since. The Orchids are very scarce in this country but the blooming Woody plants have been plentiful and I have collected many new varieties of these. I have, you will note, found but 3 varieties of Orchids.

The salery chack for March received yesterday. This is the last payment under the existing contract. Mr. Ames, I really am very much destressed because I have not heard from you in so long a time-Not since yours of Jan. 20th. I am very anxious to learn what your plans are for me for next year.

I am trying to make the last month of my contract with you the best of the year as to production. We, must of course, take into consideration, when accounting the results of the year, that there were two #### months of revolution during which time I was able to do very little work compared to the work done during the rest of the year.

Trusting that I may hear from you in a very few days and that this shipment reaches you in good condition, I am,

Sincerely yours,

B. Edua & v.

Comayagua, Honduras.

March Fourth 1933.

My dear Mr. Ames:

In reply to yours of Feb. 22ed. received to-day:

You say that on Feb.21st. you received a box postmarked (From where?) Feb.3rd. containing two seed capsuels of a Cycnoches. That box was mailed at Siguatepeque Nov.10,1932. It must have been held in the Office there or at Tegucigalpa from Nov. 10 1932 to Feb.3rd.1933. It was about Feb.3rd. that the Post Office in Siguatepeque was moved to a new building and it may be that the box was found at that time and forwarded.

As to the shipment made on Jan.9th.; part of which you say has not been received. I shall have to report the shortage of the two packages of Orchid specimens and try to have them traced. I am very much destressed over this shortage as there were some very fine and new varieties in this package. I have I have one duplicate each of a few of the specimens packed in Package No.Two Nos.315 to 326 but not of all. I always try to have at least one duplicate specimen for myself but sometimes there are not enough collected to keep one out of the shipment. I do not have any of them in Alcohol. Neither do I have duplicates of the Woody Plant Specimens. These I don't keep. However the duplicated I have are at Minas de Oro with surplus material. If you do not later receive the missing package of Orchids and want I shall gladly send what I have.

You say that you have budgeted \$3,600.00 for work in Honduras but do not say that I am to get another contract. In fact as you go to say that you do not feel that I have earned that money that has been paid to me during the life of the present contract I am enclined to infere that the work will be given to some other collector. Also here is another fact that would seem to bear me out in this inference. I told you in my letter of Jan. Eighth that if you would renew my contract for \$3600.00 and would advance me \$400/00 I would buy a truck for my use in collecting. In you letter of Jan. 20 you state that if the contract is given me that you will advance the \$400.00. Yet you say nothing about this in the letter just received. As I shall not be able to get a reply to this letter before April the First I shall go collecting as if the contract were renewed and then if you write me that ### it was not I shall despose of the specimens collected ## ,after April First, to other parties. I am very sorry that you feel as you do about the matter but I assure you that I have given you the best service that Was possible. I do search for specimens but when they are not there I can not get them. I remind you again of two months revolution one month of sickness, neither of which I could avoid, greatly cut down production.

Were I to collect for several institutions and individuals rather than to contract with one institution. Then I should be able to collect and sell specimens in many departments of Natural History. Many want bird and small animal skins. Others want Insects, fishes, live Orchid plants, ferns, mosses, woody plants, and minerals. Several Zoos want live birds and animals. Arcaeologists want prehistoric Indian relacs. All these I can supply but to all enquiries

I have replied: "Wait until after April First 1933 then I shall let you know". As i have told you before: I feel that we have only just touched the Orchids of Honduras and I would rather continue collecting for the Arboretum, emen at a finincial loss to myself, until we have collected a representative showing of Honduran Orchids.

Should you give me tha contract for another year it will be impossible for me to finance myself until the first of July, as I did last year, I have very little money saved from my salery as I have been paying expencies, except assistant salery, for the past two months and another month to go.

I hope that you have a very pleasent trip to the Indees and that I amy hear from you soon after your return.

Yours very truly,

B, Edua D

My dear Mr. Edwards: Your letters dated Feb. 11,14 and March 3 have been received. I would have answered them promptly had it not been for my absence in the West Indies. I returned home last Monday and to-night I am off for Florida to be away until the first of April.

The package of orchids noted in your letter of Teb. 14, arrived in good condition. Very excellent material. There are several aditions to the flora of Honduras, but no new species.

I wrote to you on February 22 to inform you that I had provided thirty-six hundred dollars in my budget for 1933-34 to cover your work as a collector for the Arhold Arboretum. I hope my letter has reached you by this time and that the anxietyexpressed in your letter to me of the third March has evaporated. If we adopt the same procedure as last year, the first check on account of the new contract would go to you on July first. If my 1932-33 finances are in good shape in May, it might be well to send you a check then.

I am indeed sorry to learn of your illness. I hope you have recovered satisfactorily and that you are now in the best of health.

If Comayagua is a poor base from which to operate docality for orchids, would it not be wise to move to some very dofferent/from any you have yet collected in? And please let me know whether you have arranged a permanent post office address. The missing orchids have not yet arrived.

Comayagua, Honduras.

March 25 1933.

My dear Mr. Ames:

To-day I am sending you, by parcel post, three packages.

No. One contains Orchid specimens Nos.366 to 379 inc. No.2 380 to

389 inc. No. 3 contains Flowers of the Orchids in packages One and

Two, in Alcohol. I hope that these reach you in good condition.

I am very amxious to learn if the lost packages you reported have been delivered to you as yet. I am returning to Siguatepeque tomorrow. It was necessary that I come to Comayagua to mail the packages as the Post Office at siguatepeque is temparialy closed, to be opened April First.

until the first of June and then go over to the Department of Sants Barbara or to the Islands off the North Coast. If I go to the Dept. of S.B. I shall work the country from Lake Yojoa to San Pedro, then from San pedro to the city of Santa Barbara to the Dept.of Intibuca thru the Dept.of La Paz back to Comayagua. If I go to the Islands I will go thur the Depts. of Yoro and Colon to Trujillo then to the Islands returning via.San Pedro, Yojoa to Comayagua. Either trip would require about six months.

Trusting that you had a good trip and that I may hear from you real soon, I am,

P.S. In package No.2 you will find specimens marked Y-50 these are for Gray's. All the flowers of Spchid specimen #367 came from the blossom stalk and I have tried to protect then as well as possible.

Siguatepeque, Honduras, C.A.

April First 1933.

My dear Mr. Ames:

Your letter of March 18th.received to-day.

I had very little luck with the Orchids in the Comayagua Valley and decided that it was best that I return to Siguatepeque. Arrived here March 25th. and have done very well here in the week. I hope that you have received my letter of March Fourth by this time. You will see by that letter that I have decided to change territory after May. I really think that I shall be able to find some more very interesting material here and at Lake Yojoa during this month and May. I also explained in that lettr that it will be impossible for me to finance myself until July as my personal funds have been keeping the work going for the last *#### three menths and now comes more trouble for me. You remember that I wrote you that I had opened a checking account with the banks in Tegucigalpa. On March 18th. the Honduran president declared a Bank Holiday to last for one week. Well the holiday has been continued twice now and no one seems to know when it will be called off. I had to borrow some money from friends to-day in order to be able to carry on.

You say in your letter of Mar.18th. that if your finances are in good shape it might be well to send me a check in May. If you will refer to my letter ## in which I made you a proposition for a new contract for 1933-34, you will find that I specified that the checks be sent me as follows: \$900.00 every three months. First payment to be sent April First. Is you did not say anything about this in your letter of Feb.22md. I supposed that you agreed to my proposial. I hope th t you can see your way clear to make the payments now. If you can not I shall be compelled to sell some of the stocks I bought in 1931 and at their present prices it would mean a large loss to me to have to do that.

I made arrangements with the Postal Department of Honduras that Comayagua would become my permanent address. I did this in December last and thought that I had advised you of the fact. I am sorry. I shall let it stand at that until I have decided just where I am going after I have finiched at Lake Yojoa. If I go toward the North Coast it is probable that I shall make San Pedro# my headquarters.

I shall have another good size& shipment ready about the Tenth of April.

Hoping to hear from you in a few days in reply to my letter of March Fourth and with best of personal regards, I am,

Yours truly,

J. B. Elmado

Ly dear Mr. Edwards:

I hope that by this time my letter of March 18 is in your possession and that all doubts regarding my plans for you have been removed. It seemed to me that I had made everything clear in my letter of February 22, and your interpretation of my words caused no little surprise. Everything hinged of course on the amount of money that would be available. When we were instructed to make out the budget for 1933-34, the sad news came that a still greater reduction would take place in our income, and until I had final figures I could not assure you of anything. I thought I had made this clear. Now you tell me that you can make more money by selling your services as a general collector. As to this I can not express a worth while opinion because I do not know what prizes you have been promised by other institutions. But I am surprised at what yousay, because I know of few institutions which have not suffered through the depression and I know of many that have had to eliminate their explorations. As for the Arnold Arboretum, I am in a position to inform you that I should much prefer to have you work on a "per specimen basis". We would undertake to accept all of your orchids and woody plants up to three thousand dollars at fifteen cents a specimen for woody plants and twenty cents a specimen for orchids. That would be approximately fifteen thousand specimens with a limit of four duplicates to each number. That would be some where in the vicinity of four thousand numbers. In this connection I draw your attention to the fact that in nearly a year you have only collected about four hundred numbers of orchids with very few duplicates. And of woody plants I understand that

you have not yet passed the one thousand

mark. If you will estimate the cost per specimen of your collections, I sure that you will realize that you/find every reason to be satisfied with the arrangement that has been in force, and to understand why we would much prefer to pay for specimens at a stated rate. But your reference to financial loss makes me pause. I cannot consent to let you go on working for the Arnold Arboretum at a loss to yourself. You will remember that you made your own terms and that I have paid you more than those terms called for. When you asked to have the amount raised to thirty-six hundred dollars, I agreed to make this amount the basis for Honduran exploration. Now you tell me that you will have used up all of your money before July first, when under our arrangement the first payment on the new contract would be due. That is, as our fiscal year begins on July first, the payment for the first quarter would not be mailed until July first. This puts me in another state of uncertainty. The best plan will be to send to you four hundred dollars at once and four hundred on July first, with the understanding that before that time you will have come to very definite plans with regard to the future. Thatis, whether you really prefer to collect for as many institutions as possible in varied fields or whether you prefer to devote all of your time to exploration for the Arnold Arboretum. In any event we cannot afford to do anything unfair or inconsiderate and it will be our aim to save you from loss while you are making up your mind to shift to another type of field work. In this connection I suggest that you send a sample collection of insects and bird skins to me. I will show these to my colleagues at the Museum of Comparative Zoology. It may be that you will find an outlet for some of your collections there. In closing our relations I should wish to feel that I had helped you in your new venture. In any event, you could count on the Arboretum for taking orchids and woody plants. But, we would not be under any obligations to identify the material purchased.

The orchids mentioned in your letter of March third have come in. Thes are as follows:

363 Oncidium cebolleta (Jacq.) SW.

364 Laelia Wendlandii Reichb. f.

365 Epidendrum immatophyllum

No. 364 is a good thing. We have had it before from Honduras, but in very poor condition. You have already sent in material of 363. and 365.

The specimens sent on March 25th have not yet arrived. Nor have the lost specimens turned up. Perhaps you had been able to ascertain something about them since writing your letter of March fourth.

I hope you are really feeling fit again and that all traces of your illness have vanished.

I will order a check sent to you tomorrow for four hundred dollars and address it to you at Siguatepeque.

I reached home from the West Indies on March 13. Then I went to Florida and only returned from there on April 5. I shall be here right along now through the spring and summer.

I dont want you to feel that I am unfair or unmindful of the difficulties that you encounter. It is a pure delight to handle your orchid material and I only hope that you will, after careful consideration decide to continue sending material to me. It is, of course, highly probable that you have corresponded with institutions or individuals who will pay you higher prives than usual and that under such stimulation you might collect more in a given time than you have done up to this time. But, from long experience, allow me to warn you that the per specimen basis is only profitable when you are actually in touch with people who will undertake to accept everything, in any condition. If they are at all selective, you will find it a difficult task to make both ends meet.

Very sincerely yours,

My dear Mr. Edwards:

In my last letter to you I proposed to send to you at once a check for four hundred dollars. Since that letter was written I have received yours of April first. I noted your reference to quarterly payments of name hundred dollars, should our relations continue, and your reference to the fact that I had not given attention to this matter. I have not taken the trouble to search your letters for the plan you say you outlined, but I have no memory of it. The point is, that I should have had to inform you that our fiscal year begins on July 1, and that, aside from any specified amount, it would under existing conditions be impossible to send a check for nime hundred dollars on April 1. Yesterday, after a careful examination of my funds, I found that I could send at this time a check for five hundred dollars, and this amount has been authorized and will go to you by air mail within a few days, addressed to you at your C mayagua address. On July first, I shall arrange to send a second payment This may amount to one thousand dollars. All depending on your final reaction to the plan to collect on a per specimen basis rather than on a stated amount for your entire product as collector for the Arnold Arboretum. Of course, when you collect on a per specimen basis, payment is only made after material is received and counted. The advances I have made would have to be worked out on the basis of the rates mentioned in my last lette: that is; fifteen cents per woody specimen and twenty cents per orchid specimen; a specimen being understood to be enough material to make an herbarium sheet, and not a single plant. Your little Oncidium, #101, for example, would hardly make a specimen if only a single plant were submitted, unless, naturally, you only found one plant. If after, careful consideration of the situation, you decide to go on with us giving us your entire product, aside from any material the Museum of Comparative Zoology might decide to take after examining a sample collection, I suggest that we operate on the same basis as that outlined in my letter of January 30, 1932, any payment over and above the original amount to be divided between yourself and your assistant. I do not know how much money the Museum can find at this time, because there has been a savage cut in income, but Dr. Barbour might see his way clear to purchase specimens with his own money if your sample collection proved attractive and measured upto the standards set by a large museum. If you will send me a few insects; bird skins, and a few reptiles in liquid (Barbour is as much interested in reptiles as I am in orchids) I will submit them and obtain for them what they are estimated to be worth. If you can attract the museum, I am very sure that you would find the Arboretum and The Museum about all you could take care of in the type of collecting that is appealing to a scientific staff.

I surely hope that the funds being sent to you will carry you through to July and that from that time on you will be out of the realm of financial worry. I doubt very much if you have any conception of the conditions that are now prevalent in our universities or in establishments such as the Field Museum at Chicago and the American Museum of Nathistory in New York. It is this that makes me wonder who is in the field to make you an offer that is more attractive than that made to you last January by the Arhold Arboretum. Certainly few people are paying in advance

for natural history specimens and any arrangement you made would be on a cash on delivery basis.

The people at the Gray Herbarium have been delighted with the specimens sent to them. Almost anything in the herbaceous line will be most acceptable.

Treesand shrubs in flower are what we want most, but ferns and aquatics will find a welcome also. And herbaceous things.

In your reply to this letter and the one written a day or so ago. I hope you will reply at length so that there will be no chance for

a misunderstanding on my part of just what you think is best to do.

I am looking forward with deep interest to the packages that are on the way and to the packages that ought to come as a result of your

recent work around Lake Yojoa.

Thieme collected in the vicinity of San Pedro Sula. He did not find very much in the orchid line, but that may have been because he was more interested in plants that are more easy to dry. It would be better to keep away from the Guatemalan elemnet at this time and go to regions that promise a new type of flora. Of course, I am not in a position to dictate. You will have to follow your own course and be guided by the conditions that are most favorable to orchids. The point I am making is that a northerly trip would take you toward Guatemala, and for the present at least, we do not want to keep meeting Guatemalan orchids in the Honduran flora. We want to get away from that element and see if we cannot detect a region where endemism for Honduras will be high and naturally of greater scientific interest.

With all good wishes, Sincerely yours.

Mr. J. B. Edwards, Comayagua, Department of Comayaguam Republic of Honduras, Central America.

P.S. In reading this over, I fear that there may be a basis for misunder-standing with regard to the amount and disposition of funds. The amount budgeted is thirty-six hundred dollars. \$3,050.00 of this amount is to be budgetted by you on the basis of my letter of January 30, 1932. The balance is more or less at your discretion with the suggestion that you use part of it to cover the expenses of an assistant or to meet the cost of transportation etc.

Siguatepeque, Honduras.

April 17,1933.

My dear Mr. Ames:

To-day I am sending you two packages by parcel post. One comtains Orchid Specimens Nos.390 to 398inc. and Woody plant specimens Nos.P-856 to P-590. Package No. 2 contains Orchid flowers in liquid. Hope that they reach you in good shape.

I am very anxious to hear from you increply to my letters of March 4th. and April First. I have heard nothing from you since I received your letter of March 18th. I shall not be able to continue the work much longer unless I receive a check from you for expences. Just as soon as I have some word from you-that is receive a check-I shall go to new territory to collect. I spent all of two weeks at Lake Yojoa and found nothing. I shall collect here at Siguatepeque as long as it is possible to find anything and then if I have heard nothing from you I shall go to Minas de Oro, where I have a friend, with whom I can live, and collect in that neighborhood.

I have funds enough to last about a week longer and then ?????????

Hoping to hear from you in the very near future, I am,

Yours truly,

Siguatepeque, Honduras.

April 18,1933.

My dear Mr. Ames:

Your letter of April 11th.and the check for \$500.00 received this afternoon. I am going to Tegucigalpa in the morning and will return Thursday and continue on with the work.

the one dated April 11th. I have not received that one as yet. So know do not just what proposition you made to me. I have gone over the letter received to-day and am willing to go ahead for this year as we did last. That is on a salery-expense basis in accordancy with your letter of Jan. 30,1932. The additional \$550.00-Over that of last-year will be needed for expense- as I explained in a pervious letter.

Since receiving your letter, to-day, and noting what you have to say in regard to collecting nearer the Guatemalan border I have decided to go to the Dept.of Yoro via Minas de Oro(San Louis) that really is the better trail to follow and then I am sure that I shall be able to pick up some good specimens in the neighborhood of the latter place. The enitre trip will be made on mule so that I shall have all the time I want to explore all the country between the two places. Just as soon as I get back from Tegucigalpa and finish here-In about five days-I shall start to San Louis.

I am sure that the \$500.00 will be sufficient to carry me over until time for the next draft. My assistant is willing that I should carry his salery over until the end of June. He has been paid up to date.

When I make the next shipment will include some specimens ## of insects, bird skins and reptiles for Dr.Barbour, as

per your suggestion. In the future I shall be on the look out for fern specimens for you.

I understand that I am to send to the Arboretum all specimens fo plants and Orchids collected and that I have your consent to collect for the Museum, should they want my specimens. I am very much interested in the Reguminous Plants of this Country and am anxious to get together a good collection, for myself, to take back to the States, when I return. I should like to have your permission to send one specimen of each veriety of liguminous plants I collect to Mr. Standley of Fields so that I might have my collection named and classified. Of course I would send specimens of the same to you either for the Arboretum of for Gray's. I should also like very much to get some of your publications describing the material I have sent you.

Please continue to address me at Comayagua. The mail for San Louis, Minas de Oro and Yoro is sent out from Comayagua.

With best regards, I am,

Sincerely yours,

Minas de Oro, Republic of Honduras, C. 1.

May 13,1933.

My dear Mr. Ames:

In a few days I shall have another shipment ready to mail. I expect to leave here about the 25th.of May for Yoro.

In regard to material for Dr.Barbour; I have collected quite a number of Insects a few Bird Skins and Reptiles which I shall send to you with my next shipment of plants. You state in your letter of April 11th.—By the way I have not received the letter you say you wrote a few days before the one dated April 11th.— that the Museum of Comparative Zoology is short in funds at this time. I have this proposition to make to them: If they will take my material I shall be glad to send it to them and allow them until the First of January 1934 for payment.

At this time of the year birds are in very poor plumage and I am very short of material for preparing this class of specimens. By the time I can get the necessary materials the birds will be in better condition. I wonder if Dr.Barbour would be willing to send me the materials I need and deduct the cost from what he is to pay for specimens. I am enclosing a list of the materials I need and can not buy locally. Please take the matter up with him and have him advise me as soon as possib

The reptile specimens I have preserved in 10% formalin solution. Please have him advise me if this is the way he wants them.

Anxiously awaiting your reply to my letter of April 18th. and with very best regards, I am,

Very truly yours.

QB. Edward

Minas de Oro, Honduras, C.A. June First, 1933.

My dear Mr. Ames:

To-day I am sending you 6 packages by Parcel Post.

No one contains Woody plant specimens Nos.P-591 to P-608 inc. Pas.

and three
No two contains, Orchid Specimens Nos.399 to 423 inc. Pa.No.4

contains Orchia flowers in alcohol (Three Bottles). Pas. 5and 6

contain specimens for the XXXXX Museum of Comparative Zoology.

Hope they reach you in good condition.

consist of Insects, both aquatic and terrestrial, dried and in liquid; Reptiles in liquid and one bird skin. The birds are in such very bad plumage just now that I decided not to send others I have on hand. The one specimen is in good plumage. I should like to know if the Doctor wants specimens of the very large Lizards and snakes and if so how he wants them prepared. Also if the bird skin I am sending is prepared as he wants them. Hope that he will be pleased with the first collection I am sending him. I shall be glad to receive any suggestions he has to make as to **INK* methods of preparing specimens or packing for shipment.

I am leaving here to-day for the Dept.of Yoro via.

La Libertad in the Dept.of Comayagua. From La Libertad I shall work over the mountains to Yoro.

I have received the publications you sent. They are very interesting and instructive to me.

With the very best of good wishes to you, I am,

Yours truly,

JB. Educato.

Ly dear r. Edwards:

Your letter dated Day 13, came in yesterday. I have been hoping to hear from you that another package of ereciseus was on the way, because it would seem that you have sloved do n conspicuously in output. I have not received any ore ide from you since the shipment of arch to including numbers to to 3.9. The specimens numbered 300 to 398 mentioned in your letter of april 17, have not arrived. I fear this is another lost package. Line numbers in about three months and those nine specimen in abers lost is not an encurring proposition. In thirty or forty years of experience with collectors I have never experience such a record. I dislike to criticise you in this manner, but I we deeply worried about the situation. I simply cannot spend iniversity money at the rate of three thousand six hundred dollars a year for the services you are rendering. I rote a very long latter to you on pril 9, (this seems to be the Letter that and not reach you). I quote the following lines: I me is a position to inform you that I would much pefer to have you work on a "per apocionan basis', te would undertake to accept all of your orchids are cody plants up to three thousand dollars at firteen cents per specimen for soosy plants and trenty cents a specinen for orchids. That would be approximately fifteen tousand and lithe limit of four auplicates to each number. Lat would be somewhere in the vicinity of four thousand numbers. In this connection I draw your attention to the fact that in nearly a year you have only collected whout four immere numbers of orchide with very few duplicates, and twoody plants I understand that you have not yet passed the one thousand mark. If you will coting to the cost perspecimen of your collections, I am sure that you will realize that you will find every reason to be satisfied with the arrangement that has been in force, and to understand why we would much trefer to pay for specimens at a state! rate.

enough to clarify my statements on April 11 regarding what your final reaction would be to a "per specimen basis". I suggested an i mediate reply to my proposition with the proposal that we would send to you four hundred dollars at once and four hundred on only first, to keep you giong until you could make a final decision as to whether you wished to act as a general collector or continue with the arnold arboretum.

THEN THAN ALTHRALL HAVE ADMINISTRATION OF THE lines quoted at the end of the first paragraph introduced this proposition.

I desire to be fair in my position. I think the record and my letters prove this.

Sincerely yours,

La Mibertad, Comayagua, Honduras.

June 23,1933.

Dear Mr. Ames:

Your letter of June First received this morning. To say that I am very much surprised by the contents is putting it very milday, you give me quotations from a letter you say you wrote me April 9th - I have never received that letter-in which you say that you advise me that I am to collect on a per specimen basis; yet in your letter, just two days later, April 11th. you advise me to accept the proposition of collecting on the saem basis of pay as that of last year with the additional \$500.00-which you even suggest that it (the \$500.00) be devided between myself and my assistant- saying that you were having \$500.00 sent to me at once-T received it- and that another check for around \$1,000.00 would be sent me July Pirst. I replied to this that I would last year; with the \$500.00 increase. Now you come along with another letter saying that you can not pay the \$3,600.00 for this year. This after I have refused to collect for other institutions and private parties because I considered that T had signed a contract with you which was binding to both parties and I had aggreed to devote all my time to collecting specimens for the Arboretum and The Museum of Comapaative Zoology. I would not collect and prepare specimens, as I have been collecting and oreparing them for you and sell them at the prices you tell me that you are prepared to pay. You make no provision for the cost of postage-A considerable item-nor for the specimens prepared in liquid. The cost of alcohol alone will average One Dollar for each shipment. Wor do you have anything to say about the return of funds I may have to expend for materials whoch I am compelled to buy locally.

I know that you have had collectors in many parts of the world but I do not believe that you have ever collected in any country where conditions are just like those of Interior Honduras. Then you were in this country you had all the facilities of the United Fruit Company at your command, you were in the coast country, where T am sure there are more Orchids to be found than in the mountains. You know nothing of the difficulties of mountain travel, obtaining mules, or of getting food that a white man can eat. Many times I have had to eat beans, and corn cakes and wash them down with black coffee, three times a day-Not for just one day but for a week at a time- nor do you know what it is to go out day after day and get soaking wet in these propical rains. Up to the time I started collecting for you there were less than 100 species of Orchids know n from Honduras. How could you or any other man know that there were 100 or 1,000 different species to be found in the country. You mearly took a gambel that the country had many new species-I have found many-but now that they are not coming in as fast or plentiful as you had hoped you want to call the deal off. I have tried to avoid sending duplicates, in large numbers, always searching for something new. With the exception of a few weeks of sickness and others of reclution I have ddvoted every hour of my time to the work.

When I wrote you that I wanted to go to San Pedro Sula and work back to the south you said "No." I changed my route and it is true that the results have not been as favorable as I had hoped. But maybe had I been allowed to go to parts of the country from which I had had favorable reports the results may have been better. During the past year it has been my custom to talk with persons who were, more or less familiar with the flora of the different localities and have mapped my routes accordingly. Do you think that, were I collecting on the per specimen basis, I would allow the purchaser of my specimens to dictate as to the territory I worked. I most surely would go where I thought the most specimens

could be found and that is just what I have been trying to do for the last year. All districts worked by me during the past year have been thouroughly collected.

I am willing to continue collecting for Hzrvard at the aggreed rate of 33,600.00 for this year but not at the per specimen rate you give me in this letter. Because I do not wish to dely in making contracts with other institutions and private parties, should you not care to carry out the aggreement entered inot by you in your letter of April 11th.1933 and by me in my letter of May 13th.1933, I should like for you to so advise me. So, if you desire me to continue collecting on the terms of 353,600.00 for the year and are sending me a check July First, as per your letter of April 11th. as soon as you have received this letter please send me a Radiogram, to Comayagua, saying, "YES". if you do not aggree to these conditions say: "NO".

It may interest you to know that I refused to sell to parties in New York, XXXX an order for live Orchid plants to the amount of several hundred dollars-Parties who have permits from the Dept. of Agriculture to import live oplants-because I knew that this would be a violation of our contract.

I am unable to say why the specimens shipped April 17th, have not been received by you. I shall continue to collect until I have heard more from you. I have another shipment just about ready.

Yours truly,

. B. Edwards.

Comayagua, Honduras.

North Easton. Massachusetts, June 29, 1933.

My dear Mr. Edwards:

You will be pleased to learn that the specimens 390 to 398 have turned up. 384 is Parma strikta and is an addition. The other numbers are not exciting. Now I have the next series beginning with 391. This is a very interesting collection and 420, an Odontoglossum, is very fine.

I took the two packages of zoological specimens to the Museum this morning. Dr. Barbour is away on a fishing trip. Just as soon as he returns I will let you know what he will do in the way of taking your specimens. am very sure that he will want you to collect for him. The only hitch seems to be that you are not getting enough plant material to make it worth our while to carry you on a salary basis. And if you use your time to collect animals in addition to plants, I do not see how you can carry on for the Arboretum. I am unable to understand the paucity of plant specimens. I am very sure that Icould go out from my front door and in a very few weeks in this very deficient flora beat your record for a year very badly. What seems to be the trouble? When Standley collected round Tela, and Sigutepeque he collected several thousand numbers in a very few months. The species are there on his record. I still hold the opinion that you make fine orchid specimens. But the cost per specimen is terribly high. I am anxious to have you continue your work for us because you are in a territory that we desire to have conscientiously explored. We do not wish to build up your ability and then have you collect for somebody else. That is natural. But unless you can supply material in greater quantity I fear it will be impossible to make another offer. On July 5th I will order sent to you a check for onethousand dollars. The reason for the delay is that Saturday July 1 is the beginning of a week end that includes Monday the third and Tuesday the fourth of July. I shall have the check sent by air mail and it should reach you in good season.

The specimens in alcohol came through without damage. This liquid material is wonderful and helps amazingly in critical studies. Your 299 seems to be a new species of Sobralia. I could not have described this from the dried specimen because the flowers are so membernaceous that they defy dissection when boiled up. I think I shall publish this with a drawing and name it S. Edwerdsii in your honor. If you can get any more of it, additional specimens will be most welcome.

Very sincerely yours,

2002

2002/3602 [1.80]

.



July 6, 1933. My dear Mr. Edwards:

You seem to have created a misunderstanding all your own, and express surprise that I should have endeavored to give you an opportunity to do work that you feel would be more profitable. In your letter to me of March fourth you stated that you would be able to make more money if you were to collect for several institutions. On March 18 I told you again that I had set aside thirty-six hundred dollars for your work. I say again, because althought I had made this reasonably clear to any man who does business with Harvard University in my letter of February 22, you wrote that it was not clear that thirty-six hundred dollars budgeted for exploration in Honduras referred to you although you were then in the field and a renewal of your contract had not been denied. On March 9 (the letter you did not receive) I went into detail regarding the work you had done for us and expressed surprise that you thought you could make more money working for severalcinstitutions, my surprise being based on the amount of material you had been able to assemble for one institution in a year of field work. I say again that you could not make a living as a botanical collector if your output were to continue at its present rate. It was then, however, that I opened the way for you to work for several institutions, offering to take all of your orchids and woody plants up to three thousand dollars at fifteen cents for woody plants and twenty cents for orchids per specimen. My attitude has been one of complete fairness, my desire being, if you decide to work as a general collector to carry you along until you can establish contacts. In your letter of June third you request that I cable to you if I desire to have you go on collecting on the basis of my letter of April 11. As it is quite unnecessary for me to state my desires in view of the fact that the record is clear so for as the Arnold Arboretum is concerned I do not intend to send such a cable. It is for you to say what you intend to do. Must I say a third time that I have budgeted thirty six hundred dollars for exploration in Honduras and that you are the one selected to work under that budget? The only suggestion of a change has come from you. I have simply been more than fair and in my letters I have offered to continue to take specimens from you provided you go afield on your own resources. If I say it would be a better business venture for the Arboretum to pay for specimens received, that does not mean that I am going to make an attempt to withdraw from the contract I have made. If you can make more money working for others, I give you the opportunity to do so. The only stipulation being that you work out any funds received from us on the established basis of botanical field rates for specimens. Another statement of yours is to have attention now: 56 Your letter of June 23 contains the statement that in my writings I have said that I cannot pay \$3,600.00 for this year; that, in other words I am withdrawing from a entract. Had I not already sent to you five hundred dollars with a promise of a thousand round July first? And in this regard I repeat that I cannot spend \$3,600.00 a year of University mohey for the services you are rendering. This simply means that I am going through with my proposal, but



that I cannot renew a contract with you on the present basis for a third year.

So far as orchids are concerned it may be that you are in an unfavorable situation. But as for woody plants the situation is different. Unless you are in a sand barren, I think your output should be greater. I have no desire to prevent you from going to profitable country. I simply objected to the Guatemalan border. If you had written to say that the region round San Pedro Sula would be extremely rich and in any event you would like to try it; then I should not have objected. We cannot tell from this point what you may find the best terristory. We have to depend on your judgement. The simply suggest what we think may be best. But your decision is final.

You speak of the difficulties of the game. Collecting is difficult. I have done it under exceptionally favorable conditions and I have collected when food and water were scarce. Merrill collected on Mount Halcon in Mindoro when it rained for the entire time of the foutteen days he was out. He lived on monkey flesh. He brought back beautifully dried specimens including fifty new species of orchids.

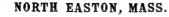
Orchids were a very minor part of his collection.

The check promised for July has been sent. It was ordered

to go by air-mail.

You refer to the sale of living orchids to buyers in New York. Of course that business is entirely different from what you are doing now. It would hardly prove profitable in the long run because the Honduran flora outside of two or three species is not of the type that appeals to horticulturists. If however, you feel that it would be to your advantage to deal in living plants and it would open up profitable avenues of endeavor, I should not wish to hold you to your present contract after you had given value received for the money that has been paid over to you. Indeed, if you feel that you cannot collect more than two thousand numbers a year, as a botanical collector, it would be wise for you to try something else. Two thousand numbers at fifty cents per specimen would only be \$1,660.00. Now take your pencil and see what your specimens for your first year have cost the Arnold Arboretum.

I dislike very much to have to write to you in this way, but your letters regarding your work and the greater advantages in collecting for several institutions, deserve serious comment. A dissatisfied collector is the most unprofitable assistant and institution can have. And when he feels that he knows more about his job than the men who have followed the same kind of work for over forty years, and knows more about process and values than they, he may well expect to get enlightened. From the beginning I have tried to be fair to you. I have given you much praise for the quality of your work in making orchid specimens, although, as I have written more than once, the experts at the Arboretum do not think much of your woody plant specimens. You have done a good job as far as it goes. In the beginning I made many allowance and tried to help you with suggestions and advice. At the beginning of your second year on the Arboretum staff you should know that you still have the job of proving upurself.





July 11, 1933.

My dear Mr. Edwards:

Throughout, the tone of your letter of June 23, 1933, is most disturbing and disheartening. If you but realized it, you are attempting to justify an attitude that is inexplicable on any reasonable basis. Review the facts: You ask to be allowed to collect for the Arnold Arbpretum and name your own terms. They are accepted. After atime you begin to complain of the heavy expenses you are put to and suggest that you can make more money by collecting for several institutions. You ask for an increase. It is granted. Again you complain of your expenses and tell me that you can make more money as a general collector. The Arboretum grants permission for you to withdraw from your contract and offers to take woody specimens and orchids up to three thousand dollars. Then you accuse us of attempting to throw you over in spite of our explanation of our attitude, namely that at the rate you collect, it would be much more advantagous for the Arboretum to pay you on a per specimen basis as would the other institutions with which you might enter into an agreement. Then you tell me that one reason for my desire to meet your terms is the sudden discovery that for us the Honduran flora has proved to be less productive of results than we had hoped. You write "You merely took a gamble that the country had many species - I have found many- but now that they are not coming in as fast or plentiful as you had hoped you want to call the deal off! You will never make a more absurd statement or a more inaccurate one if you live to round out a century of time. We are not dissatisfied with the flora or the absence of new species. We are dissatisfied with your performance and it is our duty and privilege to tell you so. Take for example your recently received numbers of orchids, nos. 390 to 423. These numbers by the label records, cover the time between March 28 and May 31. In April you were afield nine days. You collected thirteen orchid numbers. In May you were afield ten days and in that time you collected about fifteen orchid numbers. This record speak for itself. The record for woody plants is not any more creditable of understandable. You speak of your hardships. Of course I do not know how far away from your base you explore, (the label records do not indicate much consecutive time spent in the field), but on the evidence it is clear that at any time of year, you do not spend as much time afield as dose the average collector. Coming back to the last shipment: You spent about thirtyfour days afield between March 28 and May 31 and collected one orchid each day on the average. Then you refer to my record round Tela and inform me that the Tela region is richer than your mountain region and that I had the resources of the Fruit Company behind me. If we use your term gamble. I am ready to gamble that the coastal regions are poorer in orchids than your m untain region. I was afield every day from early morning until evening and my pressing and note-making had to be done in the closing hours of the day In three weeks in a poor country I collected about three time as many species ason the record before me you collected in about two months. I was a transient; you are a resident.



July 15, 1933.

My dear Mr. Edwards:

Dr. Barbour has just returned from his fishing trip. I saw him yesterday at the Museum of Comparative Zoology and asked him about the sample collection you had sent in for him to examine. He was not at all enthusistic about the specimens and I gathered from his remarks that he would not be interested in having you collect for the Museum. I am sorry about this, because I had hoped that you might be of service to the Museum while picking up a little more money for your efforts. However, in one way I think it is all for the best where the Arberetum is concerned, because I doubt that you could give your attention to a multiplicity of interests and make plant collections of the standard that compels the interest of a first-magnitude institution. Dr. Barbour, by the way, has a collector in Honduras at the present time. He is collecting near Trujillo, I understand, and I take it is a trained field man. It is highly probable that you might meet him if you decide to visit the coastal regions. I did not get his name, but the Fruit Comany officials at Forto Catilla would probably be able to tell you something about him. I should not advise anybody to go to Truxillo for orchids, however, because it is a wind swept region and the drying air seems to discourage epiphytes. Pehaps if one got into the mountains back of the foot hills that rise from the coast backof Tuxillo, orchids and other good things might be found. I only had time to study the woods near the town and my press was empty when I returned to my base. I did not study the rain fall condition in that region. Perhaps the records would show some localities to be more favored than others. At Tela I did study rainfall and I found that there was a decided influence on orchid vegetation where the rainfall was heaviest. This is one reason why coastal lewlands are usually disappointing to the orchid collector. It is in the mountains and at high altitudes that orchids thrive best and may be expected to occur in quantity as to plants and species. The orchids of the low lying lands near the Atlantic coast usually contain orchid weeds, that is the species that one may expect to meet from Central America to Brazil. Endemism is usually associated with mountain valleys where the rainfall stimulates a rich vegetation. Such valleys, as is very true of Costa Rica, may each one support species that are either endemic to a particular valley or rare elsewhere. Mountains that are not cloud drenched during many days of the year may be orchid barrens. It is surprising what a rich feast for the orchid student a man like C. H. Lankester will bring back from a few days spant on the the sides of the great volcanoes of Costa Rica. And yet, the coastal country round Limon is most disappointing. This reminds me that where you found Chysis aurea, Odontoglessum Williamsianum and Lacaena spectabilis the conditions for orchids must be approaching premising prepertions.

Yours sincerely,

Rio Eindo, Cortes, Honduras, C.A.

September 23,1933.

My dear Mr. Ames:

In the morning my assistant will leave here for Potrerillos with Five packages of specimens which he will mail to you. The contents are as follows: Pa. No.One contains Orchid Nos.: 230,520,499,523,524,525 and 528,duplicates of Numbers previously shipped. Also Nos.530 to 552 inc.and 554. Pa.No.2 contains Orchid Nos.:518,519,521 and 528 duplicates of Numbers previously shipped and Nos:540 and 556. Pa.No.3 contains Orchid flowers in liquid. You will find the following Numbers in liquid which are not in the shipment of dried specimens; 555,557 and 558. These specimens are not yet ready for shipment and I am afraid that the flowers in liquid would not stand up until I am ready to make next shipment. Pa.No.4 contains Woody palnt specimens Nos.; P-641,643,649,650 662 to 673 inc. Pa.No.5 contains wood and bark specimens of the Woody plants shipped.

The rivers are still very high and it is impossible to get amimals to carry out the cargos so am sending these five packages out by my assistant and a Mozo. I have not had a letter from you for some time but expect that the assistant will bring letters back from Potrerillos. I suppose that you have had a check sent for the payment of Sept.First and that he will get it now. If it comes I shall make a trip to San Pedro Sula and get the money there. I am working our way down the Comayagua river valley; that is I am working the highlands; and will get to the neighborhood of San Pedro Sula sometime about the middle of next month. As that place will be our nearest town for some time I think that it would better for you to send my mail there. In fact I am having all my mail sent there after October First. If the check for Sept.has not already been sent, please

have it maild there also. My address will be 4 17.San Pedro Sula Honduras . C.A.

I have a few more of the Cycnoches which will be flowering in a few days and will send some of the flowers, both male and female in liquid.as well as dried specimens in next shipment. I have one plant.male, which had three clusters of buds. One does not find the female plants producing over one cluster of just a few flowers. These plants male and female were found growing on the same tree. However the male plants were blooming several days before the females. In fact you will note on my field notes covering Nos. 538 and 556. that No.538 male was taken Sept.7 and 556 female Sept.20. Both numbers were found in the same tree but there were onle male flowers and the rest of the plants; budded; were taken to the camp and the female flowers opened Sept. 20th.

This is the fourth shipment on which I have had no report. I hope that none of the packages have been lost on the way. We are having plenty of rain. In fact it rains about 18 hours of every 24.

Hope this shipment comes thru all O.K. and that Yours truly, you will find something interesting in it. With best regards, I am,



September 23, 1933.

My dear Mr. Edwards:

Your letter of Sept. first with three enclosures, (descriptions of nos. 521; 522 and 528) came in a day or two agos and now the specimens are here, a splendid lot containing several very interesting and welcome species. No. 522 was not among them, however, and I fancy you are holding that for another post. Everything seems to be accounted for except 522 and 509. Your 475, by the way, was most acceptable. This is the rather rate Catasetum Russellianum. It is new to Honduras and I had only sketches of the species in my herbarium! No. 460, Oncidium leucochilum, is also an addition to the flora of Honduras. No. 468, Pleurothallis Johnsonii Ames and 465, P. Missuta Ames are also additions to the flora of Honduras. No. 505 in the last shipment is undoubtedly Liparis clata. Although this genus and species have been reported from Honduras, I have no material of this Liparis in my herbarium, from Honduras.

The Stanhopeas and Catasetims are fine. Unfortunately there are no alcoholic specimes of the male Catasetums, only the female. I hope you have material in alcohol to send later. No. 518 is wonderful material of Stanhopea ecornuta.No. 528 is, I believe, Stanhopea cymbiformis Reichb. f. The specimens and your detailed description match Reichenbach's particular almost to a dot. No. 521 is most certainly soculata. 519 is a female Cyenoches, 527 and 526 are males. I think all of these are the same and represent what has passed for Cyenoches glanduliferum. They are the same as your otherCyenoches. The Catasetums are all referable to C. integerrimum. You have passed understandingly on 497. This number represents both sexes. I am delighted to have confirmation of my suspicion that you have found only a single species as yet of this particular section. Now I can have the thing grawn and feel sure that my identification of the female rests on substantial evidence.

A check for six undred dollars was sent to you on September 11. This went by air-mail and I suppose you have received it. I propose to send the next check on November first. If you need funds before that let me know and I will send what you need.

I am pleased to know that you are now in a region that seems to be more favorable than the one in which you have been working for so long. Please boost production and by all means keep a sharp eye out for Stanhopea, Catasetum and Cyenoches.

The alcohol specimens came through without the breaking of a bottle. It is certainly a delight towork with this material. It quite spoils me for dried specimens.

Until notified to do otherwise I shall continue to address letters to Comayagua.

Sincerely yours,

Santa Cruz de Yojoa, Dept.of Cortes, Honduras.

October 14 1933.

My dear Mr. Ames:

To-day I am leaving here for San Pedro Sula, with packages of specimens for the mail. I am taking them myself as there are many of them and I have to get some money. The check for \$600.00 was received last month and I sent it to a merchant in San Pedro who is holding the money for me. At last I have been having good lick with my collecting. I have in this shipment many fine new species and fine specimens I feel now that I am in a pretty good orchid country. In fact the flowering plants of all kinds and also ferns are more numerous here than in many other sections I have been working this year. The rivers are still very high. I suppose that you have been seeing some of the Ass. Press dispatches to the papers in the States in regard to the storms and high waters in Honduras during the past month.

As I have no wrapping paper here I have made up bungles of the specimens and wrapped them in Dried Banana leaves. INK NUMX Each bundle contains the dried specimens, flowers in liquid and wood of the dried specimens in that particular pandle. When I get to S.Pedro I will make up the regular packages for shipment and will that you the contents of each. Ther will be something like 8 or 10 packages in all. The specimens which I am sending in this shipment are; Orchids; Duplicates of Nos.520,522,518,540 and 551 Nos.555,557 to 610 inc. Woody plant specimens Nos.P-674 to 750 inc.

Hope that this shipment reaches you in good condition. With best of regards,

Yours truly, B. Educu D.

San Pedro Sula. Oct. 20, 1933.

My dear Ms. aues; Sanoed free yesterday alter funding of days are the road from S. Cherr. a terrible their happened on Oct. 14" the reater seas on high that I correct not cross even in the Canoe, of stayed on the Sanoe side until the after noon to the 15" when the Canon man said that it would be safe to across. I had my saddle mule, two point muchos of a mozo. I had my

not get every thing in the Cause for one trip so pear our bout and week over in the first trip. The cause returned and loaded in the rest of the bundles of the mos and started arross to me. When aboren the middle of the stream the cause was tiet by a very large, nearly sub merged, log and resturned. The entire lot of aper meno una lest the mozo drowed. The Canoe man managed to get out alive by chinging to the a boret a mile below. I spent the using that day for the body of the mozo which they recoved, about 3 P. M. on the 16". When I arrived at Potreilles net 17" I was cerested by the authorities and after a wait of 24 hours was told that I would be released so so to the Cause name and \$25.00 to pry Court of presso. Idid not have that nearly morely with me and told them to send some officer wille me and when I arried cet S. Pedro I would fory. This they did and as soon as I landed then yesterday of of \$330.00; & 25000 to the windows of the moss, 5000 to the Cause man 25.00 Courtexp, and 1000 took of of perm To S. Vidro from Potherillos. This thing has report more that I hadly prove what to do. Manly all the Material Collected

Collection, it. There was such a fin lest of spening and to have it all lost in a momento time un a shock I shall not getone soon, and the death of the mozoney terrible. The one france of some of many the from it while I am regard as tony authorise Orelie spun: begli stroy her. 520 528- 540 8 5-51 her 555 and a bottley flower in liquid. Jam leaving her to monor a. he for my camp and shall try to get other specie ment of those lost. Many well be only flower and Then which we were will O'herr coldren me car Consequence as of shall were attempt to one to S. Pedro Specie. I ful that I have had send bad wich this you this after my 1933-4 ceretains collecting for you with one fory so make up for the time and money work This yeur. J. Crown Ade. E.



November 1, 1933.

My dear Mr. Edwards:

Your letters dated Sept. 23, and Oct. 14 have been received. Also I have received the specimens sent with the exception of 522. In my last letter I reported that no. 509 was missing This was an error in listing. That number is Maxillaria uneata Lindl. I have looked through all of the papers twice and do not find any trace of no. 522. Your letter of the 14th Oct. with its terrible news adds simply another tragedy to the many that have happened in my experience with collectors. The loss of your assistant makes the loss of the specimens a wholly secondary matter. But what can be done. It surely was not through any fault of yours that the canoe was upset and lost and the penalty you had to pay seems a queer interpretation of human affairs. I realize and this you know, that your output has mot been adequate and that for the money we have spent our return has been most disappointing. Your record for woody plants has been too slight. And for this I have no explanation, because in the case of woody plants you are not up against the proposition that so often characterizes orehids.

I do not know what arrangement we should make for the future after your contract time is up. It may, depending on your showing from now on, be best to continue on a three months basis. That is, if our financial structure here does not go entirely to the dogs. One has to be very cautious in planning ahead these days, and I should hesitate to make any binding agreement as far ahead as the last day of your present service. I suppose it will be well to send another payment at once. This I shall attend to before the end of this week.

I hope you will be able to make up for the lost specimens and in your return to Comayagua I certainly hope you were able to add some of the lost species to your bag. It is most disappointing to think that many good things were lost in that river accident.

There were several good things in your last shipment the one referred to in your letter of Sept. 23, (The Oct. lot has not yet come in).

There is certainly criticism here of your production by simplifying your methods? They want material in quantity and I think you should bend your efforts to mass production. I dislile you must feel pretty well discouraged. But I do feel that in the closing months of this fiscal year you should get out of the rut you seem to be in.

Very truly yours,

Santa Cruz de Yojoa, Dept.of Cortes, Honduras.C.A.

November 29,1933.

My dear Mr. Ames:

Just about an hour ago the Indian Runner arrived from Jaral with my mail and amoung the letters I found one from you dated Nov.First. The check has not yet arrived. I am running a little short of funds and hope that it will come in a short time. The cost of the accident at the river last month took more than half of the last check. To date, since my return Oct.23ed. I have collected material of 57 dufferent varieties of Orchids and 25 Woody Plant specimens.

I note what you have to say about the shortage of Woody Plant specimens. I have only this to say in reply: Many days I go into the forest and do not find a single Woody Plant specimen—That is in blossom—when I do find Orchids. It is something I can not help. You insist that the plants taken must have blossoms and they simply are not to be found in large numbers. I am sure that I do not overlook any thing in the way of Woody Plant material. When it does exist it is much easier found than Orchid material.

The Indian is returning to Jaral to-day and I am sending this letter and the one I wrote Nov.15th. bacj by him. I am not sending out any of the packages of material as the Post Master at Jaral will not accept Foreign Parcel Post.I shall have to wait until the rains let up some and then take them to Siguatepeque or San Pedro Sula. I shall have to take the packages out myself as I do not care to trust them to a common Indian laborer. So far I have not been able to get a reliable assistant and am havein g to use a lacal man to go into the forest with me and then at night I fix up the specimens and keep the charcoal fire going under them until Ten or Eleven O'Clock. Some days I have to stay in on account of the very heavy rains and when I do I keep the fire going all day and in this way get the specimens dried out in a short time.

Hoping to hear from you very soon, I am,

Sincerely yours.

AB Educar

Siguatepeque, Rep. of Honduras, C.A.

December 14.1933.

My dear Mr. Ames:

from Santa Cruzde zyga

I arrived here last Sunday/Dec.11th., and yesterday I placed in the mails seven packages of material for the Arbotetum. Package No.0ne contains the following Numbers: Duplicates of No.561, Nos.563 to 578 inc. Pa.No. 2, 566;579 to 600 inc. Pa.No.3, 577;601 to 612 inc. and Woody Plants Nos.P-703 to P-712 inc. Pa.No.4, 570;590;605;609;611 to 620 inc. and Woody Plant Nos.P-713 to 716 inc. Packages Nos.5 & 6-Orchid Flowers in Liquid. Package No.7 Wood and Bark material.

As I have no man with me now with whom I could trust #### to make the trip and hoping that I should find a check here I made the trip. The check has not arrived. I shall have to wait here until it does arrive as I am entirely out of funds. I surely hope that the reason that the check, you wrote me you were having mailed the First week of November, has not been lost and that the delay is due, again, to carelessness on the part of some one at your end of the line. If the check was mailed early in November you had better order nonpayment and rush a duplicate to me. On December First the Arboretum was \$ 300.00 behind payment with me. Owing to the expence of the River accident in Oct. my expences heve been very high. I have some more material on hand but was not able to mail it yesterday with the other packages as I did not have the money to buy stamps. There is no one here who will cash a check for me. Air Mail from the States should reach here in XNX a few days and I am hin hopes that the check will arrive at that time. Yesterday I sent a telegram to the Post Master in Jaral asking him if there was any mail there for me and he replied that there was nothing. So the chance of the check being there is out. The last check sent me was sent out by ordanary mail and which is a very bad thing to do with letters containing checks, it was not even registered. There 1%X are so many chances for this class of mail to get lost. While Air Mail comes thru all right.

I hope that these packages reach you in good condition and that you may find something out of the ordinary run amoung the material packed in them.

you the Best of The Season's Greetings.

Sincerely yours,

13, Edera do.

This letter was recent after the am dales due 24, 1933

Siguatepeque, Honduras.
December 16,1933.

Dear Mr. Ames:

The mail from the States arrived yesterday and no letter from you or a check from the University. I can't understand what has happened. I have not had a letter from you since yours of November First. I managed to get a small loan to-day so am sending on t the rest of the material I brought over from Santa Cruz de Yojoa with me. Package No. One contains the following Orchid Nos.; 570,571, 595,608,617, 621,622,623,625,626 and 627. Woody plant Nos.P-717 to 728 inc. Package No.2 contains wood and bark specimens.

Way I feel that surely the check you promised will reach here in a few days and so I am staying here until it arrives. As I stated in my letter of the 14th. I am sending the check, as soon as it arrives, to Tegucigalpa to be deposited in the bank there and then I can get money here on a check. These people in Siguatepeque simply will not take a KNAKK personal check drawn on a bank in the States. They will accept one on a bank in the country.

Trusting that thes shipment reaches you in good condition and that I shall have a letter from you and a check from the University in a few days. I am.

Yours truly.

AB, Educado,

. My dear Mr. Ames:

This check for \$ 500.00 was received yesterday.
This check is dated November 27th. I can not make out the date on the cancelation stamp but the letter was received in Comayagua Dac.
23ed. and forwarded to me here. I had been in hopes that I would receiv a letter from you this week or before I go back into the field but there is no chance for that now as the streight mail from the States was received yesterday and the Air Mail yo-day. The last letter I had from you was dated Naovember First. Surely you have written since that date and the letter has been lost.

I have taken a few specimens while I have been here waiting for the check but they are not ready for shipment yet so I shall take them back to Santa Cruz de Yojoa with me. I am leaving here tomorrow morning and if I have no bad luck shall be in the field again in three days from now.

I hope that you had a very good Christmas. I tell you my Christmas was very lonely. Here in this place where there are none of my own countrymen with whom to visit and no money I felt pretty blue all day. I have been able to get some money, enough to last me for several weeks, on my check on the bank in Tegucigalpa where I sent the check for deposit and have settled my debts here and am all ready for the return trip to Sants Cruz de Yojoa.

With the very best of good wishes, I am,

Sincerely yours,

P. S. In all probability it will be from I to 6 weeks
before I shall have a ship must on the way as I is hall have
to spend all the days in the field and perfore the sentence
at night. muless I find a good aliable assistant I shall
at night. When the perhaps not when the ship must i
have to take the perhaps not when the ship must i
have to the perhaps not when the ship must i
have to the perhaps not when the ship must i
have a tracked man have is leaving to night for require grape
and I am sending this ing him in higher it will leave a
Sunday's plane.

Sunday's plane.

January 4, 1934.

My dear Mr. Edwards:

I am sorry that the check sent in November has not yet reached you. The only thing to do is to send another check with the hope that the missing one will turn up in the course of time. It is sad, indeed, to have financial troubles come along at a time when we are in despair regarding the results of our expenditures. You still feel, I doubt not, that we have no reason to expect more of you, but in this regard I must tell you that in a letter to Mr. Rehder, my friend Paul Standley expressed surprise at the number of things he knewy you had missed in regions he had passed through. I am deeply discouraged and utterly unable to explain why you have failed sosignally. Once more I beg of you to collect intensively and to increase production. Saying nothing of woody plants, the number you have collected being too small to mention, it is a sad statement that in two years, or nearly two years, you have not been able to collect more than seven hundred numbers. And consider the cost! A man and his wife are to collect for us in northern Mexico for six months and they have set their price for the work at two hundred and fifty dollars! I doubt not but in that length of time they will make a collection of two or three tousand numbers.

I note what you say about going into the field as a general collector after you have finished your present year with the Arnold Arboretum. Your suggestion that you have failed to make a good showing for us and feel that you should continue to work for the Arboretum free of charge after your year is up until you have made up what we had every right to expect in your second year of effortis very kind. If you wish to carry out this suggestion I feel that you should collect on a per specimen basis rather than on a time basis, counting orchids worthy twenty cents and other specimens worth fifteen cents each. These are the regular rates that we are accustomed to pay and are fair. I realize that you have referred to these rates as radiculous, but you will remember that I wrote to you that these were the prices set by Chaplain Clemens for his Bornean plants. When orchids are accompanied by specimens in alcohol I think twenty cents each is very fair if we pay postage. Of course I do not feel that you should obligate yourself in any way. When you have completed your contract time, that is all we have any right to expect. If, on the other hand, you really believe that you have fallen far short of giving value received, then it is your right to make up any deficiency you desire to make up. In any event we should wish to receive specimens when you collect for your own account, but we should maintain our price level. It would be for you to collect or not on this basis as you saw fit.

The specimens just arrived are very good indeed. I think only two numbers are new to your list. The others are simply repititions of previous numbers.

Very sincerely yours,